

MAY 26 1948

# RARE AND POPULAR FLOWER SEEDS VEGETABLE AND GRASS SEEDS

GARDEN BULBS - ALL KINDS

OVER 4,000  
SPECIES & VARIETIES

GARDENER'S SUPPLIES

PIONEER SEED COMPANY

DIMONDALE, MICHIGAN, U.S.A.

Since 1911

MAY - 1948

Monthly - Number 48-3

## In The Mail

About the first letter that came in for this issue, was from Emily S. Lowman, saying, "I am interested in Campanulas and hope you will have a list of the rock garden types soon" and for some reason unknown, the classification for the Campanulas, got scattered all over the page, but to make up for this, there was added many more Campanulas this month and we hope that she will be able to find species she is interested in. You will find this about the most complete list of Campanulas but we still expect to have more shortly, especially the rare types. Mrs. Lowman also wishes a "double rose Dianthus, gray foliage, that is used so much in Switzerland in walls, it is very fragrant and dwarf." We have written our source in Switzerland and no doubt will have this species for her in time for planting.

Then, way up in Canada, Mrs. A. M. McPherson, of Winnipeg writes? Thanks so much for your catalog and for being so prompt. I enjoyed your catalog very much and personally, I think it is an improvement over those gaudy pictures which other companies use year after year." We might mention here, that our mailing list and customers come from the better type of flower gardeners, that is, we mean to say, those who actually take a great deal of pleasure in their flower garden and plant only the better strains. 90% of our customers are readers of such high class flower magazines as the Flower Grower, Home Garden, Sun-Up, Garden Chronicle, etc.

Mrs. Stella G. Bishop of Essex, Mass. says, "I find your catalog extremely interesting. Please keep me on your list. Why don't you charge for it on a yearly rate, it is worth it." Well, here letter is payment enough, thanks a lot Mrs. Bishop and we trust you will grow some very nice flowers this year.

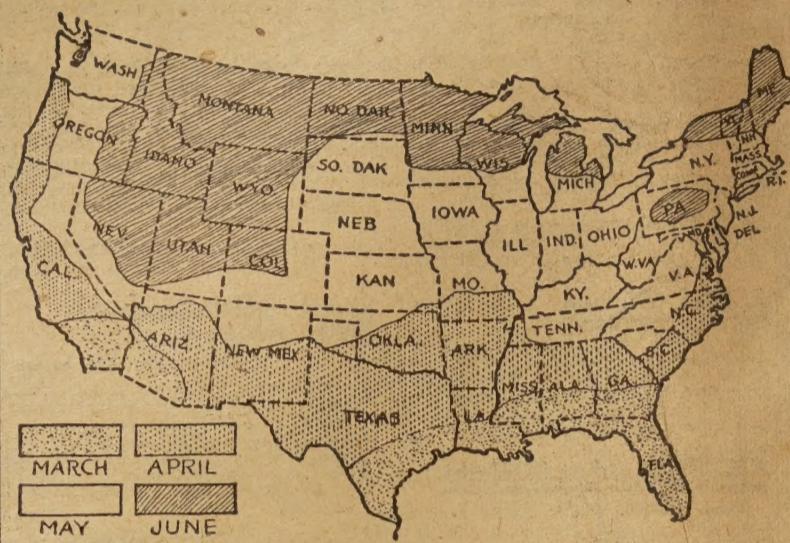
We have a request last month - from a botanist, sending us the names and addresses of Begonia enthusiasts of his acquaintance, for catalogs. These were gladly mailed out last month and again this month; those that wish further copies please drop us a postal, we were pleased to mail you copies and hope they were of interest. Those that are especially interested in one genus, afford their member a great deal of pleasure of the very highest type, and it our policy to encourage this in every way possible. Usually they have seed exchanges, and these are all right and a good deal is accomplished for what is the use of growing something and keeping it all to yourself. Make use of it and these seed exchanges are the easiest method of sending a little part of

(See IN THE MAIL, Page 18)

## American Rock Garden Society

The Society wants to double their membership this year and all Rock Gardeners should join up now. The Society publishes a very interesting and instructive bulletin, that will be of value to all interested in rock gardening type plants. To increase the Society membership, means to increase the scope of the bulletin.

The annual dues are \$3.50 per year and should be sent to Dorothy E. Hansell, 19 Pittsford Way, Summit, N. J.



FROST RECORD MAP SHOWING WHEN LAST FROST MAY OCCUR

The above map shows approximately those locations where the last frosts of spring and the first in the fall, will occur. It is possible for frost to occur earlier or later than these dates and also there are many locations within these areas that vary, therefore the gardener will have to be cautious. Gardens located in towns will be more free from frost than those in the country; low places will have frost more. Plants marked HA, or hardy annuals can be planted as soon as the soil is workable but those marked TA, or tender annuals, should not be set out or seed planted, until time indicated on the above map.

## Germination of Flower Seeds

NOTE: We are preparing considerable information on the matter of seed germination and especially as to light and darkness. Mr. Schrader is an expert flower seed grower in Germany and furnishes us with articles each month on some practical phase of flower growing. We are leaving his article just as he writes it, and very good English he uses too, but we can add that on the matter of frost, he does not mention the use of the freezing compartment of your refrigerator. This is easily understood, so when you are planting such seeds, place them in the freezing compartment for a few days, even to putting them in the ice cube tray and freezing the seed in the ice cube; to do this best fill the tray but half full at first and then after freezing for a while place a few seeds on top and freeze a little while longer and then add the water again freezing solid. Try the freezing treatment different ways. We will also try to give more information later on deep freeze treatment and we will be pleased to hear from any reader having experimented on the subject.

Following is Mr. Schrader's article:

Only a few kinds of seeds will afford from their outward appearance conclusions on their inner quality, their age, vitality, etc. In comparing different seed-crops of one and the same kind under the magnifier you may find the one more glossy, the other more dull, the one more plump than the other, etc., and the dull and smaller seed-grain will of course be chosen by the gardener for his sowings only if he knows that it may retain pedigree-values for him, i. e., he will disregard in this case the usual advantage of higher germination in order to attain some valuable intrinsic feature of the plant. In general however, the question of germinative faculty and vitality is of paramount importance for every gardener. The seed-ball is full of mysteries and above all in the nascent stage greatest care should be bestowed on same and due consideration should be given to the behaviour and natural conditions of vegetation. Could you imagine that a seed-ball may react differently according to darkness or light for instance? It does so in fact and in the nascent stage light may be usable to certain varieties as a promoter of the building of chlorophyll; light may check the development of the germ in acting too strongly—except certain kinds that have adapted themselves to light even as far as to claim light, such as most grasses, Umbellifers, Conifers, Gesneriaceae such as Achimenes, Saintpaulia, Sinningia, Streptocarpus, also Digitalis and Nicotiana. The number of sowings preferring darkness is how-

ever in the majority inasmuch as most seeds will require an envelope of earth to afford uniform moisture and temperature and are thus in obscurity by natural conditions already. Following varieties have been ascertained to be specific dark-germinators: Aconitum, Althaea, Asparagus, Cannabis, Cyclamen, Impatiens, Nemophilla, Nigella, Phacelia, Phlox, Rheum, Ricinus, Scabiosa, Solanum, Solidago, Whitavia and light should be afforded them only gradually when the seedling is really "out". In the case of the thick seeds, they will be in darkness by the soil-cover and for the fine-grained seeds pay attention to keep them in obscurity artificially. Certain scientists maintain that the expression dark—or light-germinators should be replaced by the terms flat and deep-germinators, but a lot of research work is still to be done in this respect as plants and their seeds behave so differently and to cite an example, the seeds of the big family of the Compositae will react differently on light if they come from the rim of the blossom as when they derive from the center zone!

Many claims for "non-germination" are laid before the seedsman's door but must be rejected by him due to the fact that a great number of seeds require frost to burst their hard seed-shell, such plants recruiting mostly among the alpine perennials. We can understand this as a preventative measure of nature to protect them from germinating in the warm autumn-nights of

(See GERMINATION, Page 20)

## Germinating Delphinium

We wanted to go into this matter more fully in the April issue and to cover it in the May issue may be too late for most growers as little seed will now be planted until the new crop comes in, and while we are mentioning the new crop, it will be best for anyone wanting the special strains, which usually turn out to be short items before the season is over, to place their orders now and when the seeds do arrive, the orders are always filled in the order in which they are received.

Always germinate Delphinium seed at around 50 degrees and this should be kept uniformly at 50 degrees; usually it is best to place the germinating pan or box on the north side of the house or at least this is claimed by some Delphinium growers, but on the other hand Delphiniums should be germinated in the dark and probably this fact has been overlooked and the germination thus being better in the dark side of the house, the conclusion was that this was the place for it; try the seed pan in darkness, by not placing it so the sun can get to it and by covering it with paper. As Mr. Schrader says, also expose these seedlings slowly to sun light at the start. There has, also, been reports of Delphinium seed germinating even at 10 years, of course, after it was carefully stored and while we have not had this experience, ourselves, it is a fact that Delphinium seed does not lose its germination in the course of a few months as commonly supposed.

We will go into the starting of Delphinium in more detail in the next couple of months.

## How Do You Get Our Catalogs

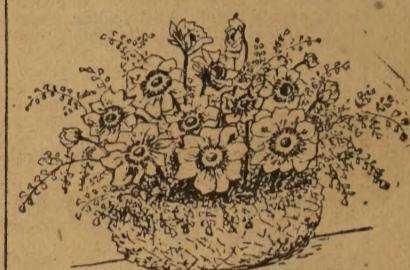
The Saier Catalog of Flower Seeds is published monthly and is sent free to our customers, those that are purchasing seeds from us. We are also pleased to mail copies to those that write us for copies, and these will be continued for a reasonable time; if you find that you are being missed, drop us a postal and ask to be placed on the mailing list. Then, again, we receive hundreds of requests from friends to send the catalog to people they think will be interested, and sometimes these lists run into several hundred, as was the case last month on Primula growers. Naturally we can send only a copy or two, when we do not know whether the catalog is of interest. Therefore if you have not yet written for your copies but have received one or two without a request, be sure to drop us a postal, so that you actually are on the mailing list.

Please be sure to give your complete address, in full, including zone numbers where you have them. Every day we get requests that are so written that we cannot make out the name correctly, and these of course, cannot be correctly placed in the files and thus are missed; and every week there are postals merely addressed, without a word being written.

We do not mail our catalogs to anyone over once, who has not asked for them; the cost of printing a catalog in itself, bars out such liberality. DROP US THAT POSTAL, PLEASE.

## Anemone Japonica

The Japanese Anemones are one of the beauties closing the variegated flower-show of your outdoor garden-year and they come like a glorious finish before the curtain falls. These flowers of the fall remind one of Sweet Briars,



so lovely are they to look at, with their graceful white ax or pink blossoms, but valuable too for a decoration of your home and you can say spring has returned for a while, to be remembered. I made the first acquaintance of these perennials in an old park on the shores of the Bosporus, where they grew in half shade in rich wood-soil. Friendship for life-time was closed with these flowers at first glance and some days later I met them again when decorating a festival banquet-table. Once more a fascination effect emanated from these tender beings, not as pompous as Chrysanthemums at that time of the year, but an atmosphere of joyful serenity filled the hall, with a colour-harmony of silvery-white, stamens golden-yellow and green. Oval and circular jardinières and bowls were filled with short-cut material such as from twigs of the Spindle-tree. (See ANEMONE, Page 17)

## Primulas For Garden

C. R. Worth

Few things can give more pleasure than a bed of brightly colored primroses on a chilly spring day, yet many gardeners still regard them as difficult plants which only an expert can manage. Nothing is farther from the truth, if one lives anywhere north of Washington, while even in southern California the tender species are freely plated in shaded beds.

True, there are many difficult primulas, some of which baffle even gardeners in especially favored Scotland and North Wales, where climatic conditions are nearly ideal for this type of plant. This is to be expected of a great race involving about 450 species, distributed throughout the mountainous regions of the northern hemisphere, from the Alps and the monsoon regions of Burma to the Arctic tundras, and on our own continent from the fog-bound Kuriles to the semi-arid peaks of the Mexican border, with a few outliers in the Andes of southern Chile. Such an immense number (See PRIMULAS, Page 21)

## Special Offer Camassia Seed For Wet Meadows

We have several pounds of Camassia quamash seed, slightly mixed with Bistorta bistortoides that would be fine for seeding a wet meadow on some estate. When in bloom it is a sight to behold.

This is an excellent opportunity to establish these plants.

PRICE: \$1.00 per lb. prepaid.

**ABIES (AY-bi-eez)****—webbiana.** **ABES-1. Pkt. 30c**

The needles are 1-1/2 inches long, flat and silvery on the lower side, cones cylindrical, 6 inches long; a Himalayan tree from India.

**ACACIA (ah-KAY-shah)****—augustissima.** **ACAC-3. Pkt. 50c****—constricta.** **ACAC-2. Pkt. 50c**

Ornamental shrub with numerous yellow flowers, native of Texas.

**—raemeriana.** **ACAC-1. Pkt. 50c****—torulosa.** **ACAC-4. Pkt. 50c****ACANTHUS (ah-KAN-thus)**

(Bear's Breech). Perennial plants or

thistle-like small shrubs native of the Old World. About 3 ft. tall with leaves 12-25 inches long and 6-10 inches wide; flowers whitish, rose or lilac borne on 18 in. spikes. They are semi-hardy and do best in rich, well drained soil and full sun light. They are best in background plantings. In the N. they require good winter protection. Seed sown in late April will flower in August.

**—mollis, var. latifolia.** **ACK-1. Pkt. 20c;**

1/4 oz. 40c

A hardier variety with pretty foliage and rose flowers, 2-3 ft., HHP.

**ACHILLEA (ak-i-LEE-ah)**

(Milfoil or Yarrow). Hardy herbaceous perennials easily grown in any good soil and sunny location, flowering from June to Aug. or later. Flowers in clusters of small heads, white and yellow very good cut flowers. Seed planted indoors in March or early April and set out doors early in May, have good chance to flower first season. Seed also can be started out doors in May or June, setting out in garden in Sept. or Oct. for next year's flowers. Set plants 1 ft. apart; heights 1-1/2-3 ft. Bone meal around plants in spring is good.

**—chrysocoma.** **ACH-4. Pkt. 25c**

Dense woolly foliage and bright yellow flowers; HP, 9 inches.

**—filipendula.** **ACH-2. Pkt. 20c;**

1/4 oz. 50c

Sulphur-yellow colored flowers, plants, HP, 2 ft.

**—filipendulina.** **ACH-5. Pkt. 25c**

A showy, tall species of robust habit, large yellow corymbs, HP, 5 ft.

**—millefolium.** **ACH-6. Pkt. 25c**

The native Yarrow of England, with round heads of white flowers, HP, 2 ft. tall.

**—Cerise Queen.** **ACH-7. Pkt. 25c**

A beautiful Milfoil with rosaceous flowers, HP, 2 ft.

**—Crimson Beauty.** **ACH-8. Pkt. 25c**

A beautiful bright colored Yarrow, HP, 2 ft.

**—pumila fl. pl.** **THE PEARL.** **ACH-3.**

Pkt. 15c; 1/4 oz. \$1.25 (Sneezewort). A pretty double white flowered variety, 2 ft. high and very much grown both for the border and cut flowers, HP.

**—Taygetea.** **ACH-9. Pkt. 50c**

A beautiful NEW variety with fine lemon colored flower heads, HP, 1 ft.

**ACONITUM (AK-oh-nyt-um)**Herbaceous perennials, common name Monkshood. *A. napellus* is the poisonous species grown for the drug aconite. Seeds germinate slowly and usually are sown out doors in May or June in partial shade, or they can be started indoors in March or April. Plants do best if not transplanted. Thin to 18 in. apart when well started. Transplanting should be done in Sept. Bone meal is good fertilizer.**—palmatum.** **ACD-1. Pkt. 20c**

Blue flowers 2-1/2 in. across, found in Himalayan pastures up to 15,000 ft., HP.

**—Wilsoni.** **ACD-3. Pkt. 50c**

Handsome spikes of very large, porcelain blue flowers, late, very fine; HP, 3 ft.

**—Barker's Variety.** **ACD-2. Pkt. 60c**

A beautiful novelty in an amethyst-blue color, HP, 6 ft. tall.

**ACROCLINIUM****(ak-roh-KLIN-i-um)**(Correct botanical name, *Helipterum*—(hee-LIP-ter-um)—*roseum*). An annual grown mainly for its dried flowers, it being one of the best "everlasting". For drying, cut flowers before fully open; they retain their color for years. Flowers daisy-like, 2-in.-3-in. across, double and semi-double, petals of silvery appearance, plant about 1-1/2 ft. tall. It is one of the daintiest of the annual group. Seeds generally sown outdoors where plants are to grow, or they can be started indoors where early flowers are wanted; space plants 6-in.-12-in. apart.**—roseum.** **ACR-2. Pkt. 15c**

This is a very pretty everlasting flower; rose-colored rays with a yellow disk, HHA, 1 ft.

**—album.** **ACR-3. Pkt. 15c**

A very neat variety with white rays, HHA, 1 ft.

**—flore pleno.** **ACR-4. Pkt. 20c**

A fine double flowered variety with rose-colored flowers, HHA, 1 ft.

**—grandiflorum.** **ACR-5. Pkt. 20c**

A much improved type with large flowers in a variety of colors, HHA, 1 ft.

**—album flora pleno.** **ACR-6. Pkt. 20c**

With double white flowers, HHA, 1 ft.

**—Sensation Giants.** **ACR-1. Pkt. 15c;**

1/2 oz. 85c

This strain has flowers fully half again as large as the old type, medium rose to light pink, making beautiful cut flowers and ideal everlasting.

**—bulleyana.** **ADEN-1. Pkt. 25c**

Pendulous pale blue flowers on stout leafy stems, HP, 2 ft.

**—liliifolia.** **ADEN-2. Pkt. 25c**

Has bell-shaped flowers in varying shades of blue, fragrant and borne freely in late summer, HP, 2-1/2 ft.

**ADONIS (ah-DOH-nis)**

The annuals are hardy, growing well in

shaded locations or under trees. Foliage, dark green, finely cut, terminal flowers solitary crimson or scarlet with a dark colored base, May-June. The perennial

Has a downy white foliage and large umbels of soft lilac flowers, HBB, 2 ft. also desirable as a border plant; yellow flowers in May or June. About 1-ft. tall. Sow seeds of annuals outdoors in late April or a month earlier indoors; the perennial sorts may be sown in spring or fall.

**—festivialis.** **ADON-2. Pkt. 15c**

(Summer Adonis). Hardy annual with scarlet flowers, June-Aug.

**AETHIONEMA****(ee-thi-o-NEE-mah)**

Dwarf and sometimes woody plants of the Mustard Family, called Stonecress and includes annual, biennial and perennial species. They should be grown more, being very similar to the perennial Candytufts, but lasting longer in flower. They enjoy a hot dry situation, do best in a sandy gritty soil. They have little four-petaled flowers usually in charming shades of pink, lilac or purple and white, seldom yellow.

**—schistosum.** **AETH-2. Pkt. 25c**

Has beautiful rose flowers in spikes; plant bushy habit, HP, 9 inches.

**—pulchellum.** **AETH-1. Pkt. 25c**

A prostrate habit, free grower and with rose-purple flowers, blooming early in summer, HP, 4 inches.

**AGERTUM****(al-er-tum)**

A most popular half hardy annual especially used for borders, edging and bedding. It also makes an easily grown indoor plant. All are free flowering, the plants covered with flowers from early summer till frost, easily grown in any good soil. Seeds are usually started indoors 4-6 weeks before time to set out—after frost danger. Strains offered are especially selected for uniform growth. In the fall, put up a few of the smallest plants, cutting them back, and grow indoors for winter plants. The taller varieties, about 10-12 in. tall, make good cut flowers. The dwarf sorts make ideal rockery plants. When seed is sown outdoors in May, plants flower in August. Rain does not damage the flowers.

**—lasseuxii.** **AGER-1. Pkt. 15c;**

1/4 oz. 50c

Delightful rosy mauve; fine cut flower, 20 inches.

**A. MEXICANUM:**Also listed as *A. houstonianum*. This species includes all the popular varieties of *Ageratum* as follows:**—Blue Ball.****AGER-2. Pkt. 20c;**

1/16 oz. 40c

A deep blue, ball-shaped plants very compact and extra choice, 9-in.

**—Blue Bedder****AGER-3. Pkt. 20c;**

1/16 oz. 40c

A deep lavender-blue on compact 4-in. plants; very pretty.

**—Blue Cap.****AGER-4. Pkt. 20c;**

1/16 oz. 40c

Rich blue in close heads, dome-shaped plants, fine for rockery or edging, 8-in.

**—Blue Star.****AGER-5. Pkt. 10c;**

1/4 oz. 55c

A splendid deep blue variety from Holland, fine for edging or bedding, 6-in.

**—Fairy Pink.****AGER-6. Pkt. 20c;**

1/4 oz. 55c

Softest salmon rose-pink, an unusual color in ageratum, very pretty for bedding, edging or rockery and also excellent pot plants or window boxes, 6-in.

**—Midget Blue.****AGER-7. Pkt. 20c;**

1/16 oz. 50c

Rich blue in a low extra compact uniform plant for edging or bedding, 2-3 in. tall.

**—Purple Perfection.****AGER-8. Pkt. 15c;**

1/16 oz. 40c

Deepest blue, plants especially good for bedding and boxes where a 9-in. plant is needed; very free flowering.

**—Silver Star.****AGER-9. Pkt. 15c;**

1/4 oz. 70c

A pretty dwarf white flowered type especially suited for edging, 6-in.

**—Swanley Blue.****AGER-10. Pkt. 15c;**

1/16 oz. 40c

Thickly bunched semi-dwarf plants in a pretty shade of azure-blue, 7-in. tall.

**—White Queen.****AGER-11. Pkt. 15c;**

1/16 oz. 40c

Pure white flowers on 8-in. plants especially suited for a white ageratum in bedding, edging, etc.

**—White Beauty.****AGER-12. Pkt. 15c;**

1/8 oz. 60c

An extra large flowered and the best white in ageratum, plants 7-in. tall.

**—Zuribon.****AGER-13. Pkt. 15c**

A beautiful dwarf blue flower novelty from Switzerland that is claimed to be extra good.

NOTE: Perennial ageratum, so called, see *Eupatorium* and *Lonas*.**AGROSTIS (ah-GROS-tis)**

A group of tufted annual and perennial grasses including some lawn grasses but ornamental grasses as listed here. Known also as Bent Grass.

**—nebulosa.****AGRO-1. Pkt. 15c**

1/4 oz. 80c

(Cloud Grass). Hardy annual ornamental grass, fine for edging the flower border; dwarf and neat. Plant indoors early transplanting to beds as wanted, 12-15-in. Especially valued as filled in bouquets of flowers.

**—stipulata.****ALBI-1. Pkt. 25c**

A small shrub or tree from sub-tropical regions, having graceful feathered foliage and clusters of tassel-like flowers followed by strap-shaped dry pods. They can be grown outdoors in the warmest parts of the U.S. and in the greenhouse farther N. Easily grown from seed.

**—cathartica.****ALLA-1. Pkt. 35c**

(Common Allamanda). Has golden yellow flowers 3 inches across, very pretty vine.

**—liliifolia.****ADEN-2. Pkt. 25c**

Has bell-shaped flowers in varying shades of blue, fragrant and borne freely in late summer, HP, 2-1/2 ft.

**ADONIS (ah-DOH-nis)**

The annuals are hardy, growing well in

**ALLIUM (AL-i-um)**

*demissa.* ANEM-15. Pkt. 25c  
Wind Flower. White flowers, 16-24-in. tall, long seed head. Most attractive part being the cylindrical head of fruit, prefers dry soil, May-July. Native of Mont.

*globosa.* ANEM-12. Pkt. 25c  
Native of Mont. Round seed head, bronze-green, 15-in. tall, May-July.

*patens nuttalliana.* ANEM-13. Pkt. 25c  
Good. Pasque Flower. Purple flowers in early spring before even its own wooly leaves unfold; easy as it is good, 6-10-in. tall, April-May.

*pulsatilla.* ANEM-10. Pkt. 20c  
Violet flowers, likes chalky soils, pretty spring flowering.

*rivularis.* ANEM-24. Pkt. 30c  
One ft. plant with white flowers and blue anthers, very free flowering and very desirable.

*sulphurea.* ANEM-8. Pkt. 20c  
Pale yellow flowers; alpine type.

*leptosepala.* ANEM-17. Pkt. 25c  
Pkt. 10c; 1/2 oz. 40c  
Robust white flowered species of great interest.

*magellanica.* ANEM-21. Pkt. 25c  
A charming species from the Straits of Magellan having sulphur-yellow flowers, HP, 2 ft.

*Mrs. van der Eist.* ANEM-22.  
Pkt. 50c  
A very rare form of this species in a beautiful rose color, HP, 1 ft.

*rubra.* ANEM-25. Pkt. 25c  
A very fine English form with deep red-purple flowers, HP, 1 ft.

*virginiana.* ANEM-19. Pkt. 25c

### ANODA LAVATEROIDES

*hastata.* ANOD-3. Pkt. 30c  
A handsome plant with glaucous foliage and lovely pink flowers, HA, 10 ft.

*Opalcup.* ANOD-1. Pkt. 15c  
In continuous bloom from June-Nov. crinkly lustrous flowers with shallow cups in upline tones that lie between blue and pink. Quick and easy grower, 3-ft. tall, HA.

*Snowcup.* ANOD-2. Pkt. 15c  
Flowers shining new-snow-whiteness—no winter flower. Plants are particularly even, dense and formal in growth and out line an all summer bloomer, 30-in. tall, HA.

*ANTENNARIA (an-te-NAY-ri-ah)*

(Everlastings or Pussy-Toes). Perennials planted in the wild or rock garden and also for dried winter bouquets. Grow in poor soil and easily propagated by seeds. The white-woolly leaves are clustered at the base of the stem and flowers are in heads.

*parica.* ANTA-1. Pkt. 25c  
Dense low mats of woolly leaves with relatively large white or pink heads, height 6 inches or less.

*rosea.* ANTA-2. Pkt. 25c  
Grows to 1 1/2-ft. tall and spreads by means of underground stems; foliage distinctly white—woolly and the bracts of the flower heads are rose colored.

*ANTHEMIS (AN-the-mis)*

(Golden Marguerite, Chamomile). Very free flowering perennials with daisy-like flowers, blooms June-Sept. Does well on dry sandy soils and in full sun. Especially good for cut flowers. Sow seed in late April or early May, outdoors, or they can be started earlier indoors. Thin plants in garden to 10-in. apart. Profuse bloomers from June-Sept.

*arabica.* ANTH-3. Pkt. 20c  
A first class annual; pretty golden-yellow flowers, HA, 15 inches.

*kelwayi.* ANTH-1. Pkt. 10c  
Pure golden yellow blooming July to frost, slightly aromatic odor; attractive foliage; excellent cut flower, 30-in.

*montana.* ANTH-4. Pkt. 25c  
Charming specimen producing pure white flowers in abundance, HP, 1 ft.

*nobilis.* ANTH-5. Pkt. 25c  
(Chamomile). The well known medicinal herb; white flowers, HP, 18 in.

*Perry's Variety.* ANTH-6. Pkt. 30c  
A bright lemon colored variety of this useful border plant; fine for cut flowers, HP, 2 ft.

*tinctoria.* ANTH-2. Pkt. 10c  
Golden yellow ray flowers, excellent for mass plantings and for cutting, 2-in. across, 2 1/2-ft. tall.

*ANTHERICUM (an-THER-i-kum)*

Tuberous-rooted herbs of the Lily Family having racemes of small white lily-like flowers and long narrow grassy leaves. Common names, St. Bernard's Lily, St. Bruno's Lily. In the North they require protection and they also make fine cool greenhouse plants or for use in lawn vases in the summer. They require a plentiful supply of water when blooming.

*lliago.* ANTE-1. Pkt. 50c  
A very neat species with small white flowers, HP, 18 in.

*iliacistrum majus.* ANTE-2. Pkt. 50c  
(St. Bruno's Lily). Pure white lily-like flowers, HP, 2 ft.

*ANTHOLYZA (an-thot-LY-zah)*

A South African genus of leafy stemmed plants of the Iris Family, growing from corms and resemble Gladiolus, both in growth and culture. For real early flowers they can be started inside and set out about June 1st. Bloom in summer.

*paniculata.* ANLZ-1. Pkt. 40c  
Montbretia-like plant with flat panicles of orange-red flowers, HP, 2 1/2 ft. Treat as an annual.

*ANTIGONON (an-TIG-oh-non)*

A tendrill climber grown in the N. as a greenhouse vine but in the S. it is a popular, hardy climber where it has a long blooming season, grows 30 ft. in good soil. In greenhouse it requires plenty of light and not too much root room. During summer it requires plenty of water and liquid manure if confined to tubs or pots. The tuberous root must be kept dry during its resting period during winter.

*leptopus.* ANTI-1. Pkt. 15c  
Racemes of handsome rose-pink flowers.

*APHANOSTEPHUS*

*skirrobasis.* APHN-1. Pkt. 25c  
Called Pink-and-White Daisy or Lazy Daisy. The flowers are flat daisies an inch or over across, center tiny, petals very many, narrow, overlapping. Above the petals are pure white, but the reverse of the flower is soft pink, and the unopened buds are pure pink. The pink and the flowers

## ANTIRRHINUM

Snapdragons are popular cut flowers both in the garden and the greenhouse. Early flowers can be had by starting them indoors in February or later on till mid-April. They are tender perennials but must be grown as annuals. The seed being small, care should be used in germinating them, they may be slow. *A. magus*, known generally as the Snapdragon is the most important species. Set plants outdoors as soon as frost danger is past. For winter bloom indoors sow seed in the open in August and transplant seedlings into pots; in more mild climates, these plants can be mulched and carried over outdoors for earlier spring flowers. Pinch out central bud when transplanting to encourage flowers on side branches.

### ALL RUST RESISTANT STRAINS.

*majus gr. fl. Giant Flowered Hybrids.* ANTR-1. Pkt. 25c; 1/16 oz. 40c  
This is a special strain of exceptionally nice flowers and colors, on robust plants, 2 1/2-ft.

*Large Flowered Hybrids.* ANTR-2. Pkt. 20c; 1/16 oz. 35c  
2 1/2-ft. in brilliant colors.

*California Giants Mixed.* ANTR-3. Pkt. 20c; 1/16 oz. 35c  
2 1/2-ft. tall, taller than *majus* group and the individual flowers larger.

*nanum, gr. fl. Mixed.* ANTR-4. Pkt. 15c; 1/16 oz. 25c  
Large flowered, half dwarf plants, excellent for bedding or cutting.

white, together with the golden flower centers, give pretty tricolor effects. Foliage is narrow and scanty, hidden from June through Sept. by the masses of flowers. 20-inches. It cuts. Easy grower, 3-ft. tall, HA.

*Opalcup.* ANOD-1. Pkt. 15c  
In continuous bloom from June-Nov. crinkly lustrous flowers with shallow cups in upline tones that lie between blue and pink. Quick and easy grower, 3-ft. tall, HA.

*Snowcup.* ANOD-2. Pkt. 15c  
Flowers shining new-snow-whiteness—no winter flower. Plants are particularly even, dense and formal in growth and out line an all summer bloomer, 30-in. tall, HA.

*ANTENNARIA (an-te-NAY-ri-ah)*

(Everlastings or Pussy-Toes). Perennials planted in the wild or rock garden and also for dried winter bouquets. Grow in poor soil and easily propagated by seeds. The white-woolly leaves are clustered at the base of the stem and flowers are in heads.

*parica.* ANTA-1. Pkt. 25c  
Dense low mats of woolly leaves with relatively large white or pink heads, height 6 inches or less.

*rosea.* ANTA-2. Pkt. 25c  
Grows to 1 1/2-ft. tall and spreads by means of underground stems; foliage distinctly white—woolly and the bracts of the flower heads are rose colored.

*ANTHEMIS (AN-the-mis)*

(Golden Marguerite, Chamomile). Very free flowering perennials with daisy-like flowers, blooms June-Sept. Does well on dry sandy soils and in full sun. Especially good for cut flowers. Sow seed in late April or early May, outdoors, or they can be started earlier indoors. Thin plants in garden to 10-in. apart. Profuse bloomers from June-Sept.

*arabica.* ANTH-3. Pkt. 20c  
A first class annual; pretty golden-yellow flowers, HA, 15 inches.

*kelwayi.* ANTH-1. Pkt. 10c  
Pure golden yellow blooming July to frost, slightly aromatic odor; attractive foliage; excellent cut flower, 30-in.

*montana.* ANTH-4. Pkt. 25c  
Charming specimen producing pure white flowers in abundance, HP, 1 ft.

*nobilis.* ANTH-5. Pkt. 25c  
(Chamomile). The well known medicinal herb; white flowers, HP, 18 in.

*Perry's Variety.* ANTH-6. Pkt. 30c  
A bright lemon colored variety of this useful border plant; fine for cut flowers, HP, 2 ft.

*tinctoria.* ANTH-2. Pkt. 10c  
Golden yellow ray flowers, excellent for mass plantings and for cutting, 2-in. across, 2 1/2-ft. tall.

*ANTHERICUM (an-THER-i-kum)*

Tuberous-rooted herbs of the Lily Family having racemes of small white lily-like flowers and long narrow grassy leaves. Common names, St. Bernard's Lily, St. Bruno's Lily. In the North they require protection and they also make fine cool greenhouse plants or for use in lawn vases in the summer. They require a plentiful supply of water when blooming.

*lliago.* ANTE-1. Pkt. 50c  
A very neat species with small white flowers, HP, 18 in.

*iliacistrum majus.* ANTE-2. Pkt. 50c  
(St. Bruno's Lily). Pure white lily-like flowers, HP, 2 ft.

*ANTHOLYZA (an-thot-LY-zah)*

A South African genus of leafy stemmed plants of the Iris Family, growing from corms and resemble Gladiolus, both in growth and culture. For real early flowers they can be started inside and set out about June 1st. Bloom in summer.

*paniculata.* ANLZ-1. Pkt. 40c  
Montbretia-like plant with flat panicles of orange-red flowers, HP, 2 1/2 ft. Treat as an annual.

*ANTIGONON (an-TIG-oh-non)*

A tendrill climber grown in the N. as a greenhouse vine but in the S. it is a popular, hardy climber where it has a long blooming season, grows 30 ft. in good soil. In greenhouse it requires plenty of light and not too much root room. During summer it requires plenty of water and liquid manure if confined to tubs or pots. The tuberous root must be kept dry during its resting period during winter.

*leptopus.* ANTI-1. Pkt. 15c  
Racemes of handsome rose-pink flowers.

*APHANOSTEPHUS*

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Called Pink-and-White Daisy or Lazy Daisy. The flowers are flat daisies an inch or over across, center tiny, petals very many, narrow, overlapping. Above the petals are pure white, but the reverse of the flower is soft pink, and the unopened buds are pure pink. The pink and the flowers

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—Hybrids. AST-25. Pkt. 15c  
Especially large flowered.

—hybridus. AST-34. Pkt. 30c  
This is an English grown strain of these hybrids, which we offer separately; this strain is from the best named varieties, HP, 6 inches.

—hybrida nana. AST-36. Pkt. 40c  
A wonderful new dwarf race of Asters having masses of blue, white, rose and pink flowers, HP, 6 inches.

—Novi-Belgii. AST-38. Pkt. 50c  
Another T&M English strain, seed saved from the very best English red and blue named varieties, HP, 1 ft.

—Novae Angliae. AST-37. Pkt. 50c  
A T&M strain of this beautiful native, seed saved from the best-named varieties, grown in England, HP, 4 ft.

—pyrenaicum. AST-39. Pkt. 50c  
A dwarf species with large blue flowers, HP, 1 ft.

—sikkimensis. AST-30. Pkt. 15c  
Much branched, heads tufted with many small corymbs in autumn and found in high pastures in Himalayan Mts.

—subcœuleus. AST-27. Pkt. 20c  
(diplostephoides). In every respect a quite distinct variety 12-in. tall with brilliant violet flowers of good size, end of May to end of June.

—Star of the Wartburg. AST-28. Pkt. 25c  
NEW. Giant flowered cutting perennial Aster with bright lavender flowers, 2 1/2 ft.

—Perennial Aster Blend. AST-29. Pkt. 15c; 1/4 oz. \$1.25  
Extra choice blend containing not only the above kinds but also many others.

—Marguerite. Elegance. AST-60. Pkt. 25c  
(Callistephus sinesis). Single mixed flowers, tall growing; very useful for border growing and for cutting, branching habit and free flowering, HHA, 2 ft.

—Southcourt Beauty Mauve. AST-61. Pkt. 25c  
Mauve flowers, tall branching habit, long stiff stems, and highly recommended for cutting, HHA, 2 1/2 ft.

—Apple Blossom. AST-62. Pkt. 25c  
—Lavender Queen. AST-63. Pkt. 25c  
—Royal Mauve. AST-64. Pkt. 25c  
—White Swan. AST-65. Pkt. 25c

The above named varieties of large flowering single Marguerite Asters are very highly recommended for cutting and we list these varieties especially for those who wish to try them out for this purpose. They are English grown and you will find them the best of autumn cut flowers, HHA, 1 1/2 ft.

—rivularis. ATIL-1. Pkt. 30c  
White flowers in long graceful panicles, 3-5 ft. tall.

ASTRAGALUS  
(as-TRAG-ah-lus)

Milk Vetches. Plants of the Pea Family having deeply cut leaves and purple yellow or white flowers in spikes or racemes. Thrive in light sandy soil. They are related to Oxythorax.

—purshii. ASTR-1. Pkt. 25c  
Nearly prostrate, dense woolly finely divided leaves; pea-flowers with keel purple tipped. For sunny rock garden.

ASTRANTIA (as-TRAN-shi-ah)

Perennial Eurasian plants belonging to Parsley Family; leaves deeply lobed and the flowers come in flattened clusters. Common name Masterworts.

—major. ASTN-1. Pkt. 35c  
A very fine border or rock garden plant with pretty roses and white flowers, does well also along moist shady woodland walks, HP, 2 ft.

AUBRIETIA (au-BREE-shi-ah)

(False or Purple Rock-cress). Low growing perennial and an excellent spreading plant for borders, beds or rockery doing well in semi-shade and with their attractive silvery green foliage covers space in the beds; flowers grow in masses in spring and early summer and combined with Alyssum or Arabis, make a beautiful display. Sow seeds any time up to Aug. for plants to flower the following spring.

—Barker's Double. AUBR-8. Pkt. 50c  
A semi-double deep rose-purple flowered variety, HP, tr.

—eryii. AUBR-2. Pkt. 20c  
Most beautiful blue.

—Crimson King. AUBR-9. Pkt. 35c  
A very pretty crimson shade, HP, tr.

—Giant Hybrids. AUBR-3. Pkt. 20c  
A most dainty and beautiful creeping sort for carpeting beds or the rockery with its brilliant carpet of blue, crimson or rose, lasting for weeks; a gem for crevice planting in rocks or walls, 6-in. The giant hybrids are vastly superior to the regular strains in both size and color range.

—Gloriosa. AUBR-10. Pkt. 40c  
A beautiful large rose pink variety, English grown, HP, tr.

—græca. AUBR-5. Pkt. 20c  
A dwarf light blue, trailing habit.

—hybrida Monarch Strain. AUBR-11. Pkt. 60c  
A new English grown strain of Aubrieta, well recommended, HP, tr.

—semi-double. AUBR-12. Pkt. 60c  
An English grown strain, seed from semi-double varieties and in many different shades, HP, tr.

—leichlinii. AUBR-6. Pkt. 20c  
Deep purple rose.

—Mrs. Lloyd Edwards. AUBR-13. Pkt. 50c  
A beautiful violet-purple variety from England, HP, tr.

—rosea splendens. AUBR-14. Pkt. 50c  
One of the best; large bright rose colored flowers, HP, tr.

—Vindictive. AUBR-15. Pkt. 50c  
One of the finest of the large flowering English varieties; violet-red flowers, HP, tr.

—Aubrieta Blend. AUBR-7X. Pkt. 15c

A carefully made blend of many varieties and species for the flower grower wanting to grow for observation many different kinds.

AUCUBA (AU-keu-bah)

Evergreen shrubs with large ornamental leaves withstanding a smoky atmosphere; tolerant of shade. Not reliably hardy N. of D.C. Grown in tubs or pots in N. where it makes a beautiful porch or terrace decoration. For a display of the attractive scarlet berries the female flowers must be fertilized by the male plants. To winter plants, keep in cool place and plants on dry side.

—himalaca. ACUB-1. Pkt. 25c

Very similar to A. himalaca. tubers. They are nice plants in dry places in the wild garden.

—aureo maculata. ACUB-3. Pkt. 50c

Very attractive shrub with golden variegated foliage, HSh, 4 ft.

AZALEA (ah-ZAY-le-ah)

Azaleas are among the most beautiful flowering shrubs and range in all heights up to 20 ft. and in many beautiful colors. They require a deep rich acid soil and as they are a kind of Rhododendron, they do best with their culture, which see. It is best to start them in frames and later in pots and when established, they can be set out in their permanent locations. While many are not hardy in the North, there are many sorts that are.

—Pontica. AZAL-1. Pkt. 50c

Yellow flowers and bushy habit, 6 ft.

—mollis. AZAL-2. Pkt. 50c

A spring flowering deciduous species in mixture, 4 ft.

BALSAMORRHIZA

(bahl-sam-oh-RYZ-ah)

Balsam Roots. An American genus of Composite Family having Sunflower-like flowers. The roots are large, resinous

—scutellata. BALS-1. Pkt. 15c

Leaves like shields, blossoms like sunflowers, 1 1/2-2 ft. tall, having tap root, April.

BALSAM. See Impatiens balsamina.

BAPTISIA (bap-TEZ-i-ah)

Sturdy perennial leguminous plants growing as high as 6 ft. Foliage deep green with indigo-blue, white or yellow flowers resembling Lupines in form, imposing in the border or wild garden, good for cutting, blooming late spring to mid-summer, followed by short plump pods that become black. Easily grown, best in partial shade, and best to start seed in open ground.

—australis. BAPT-1. Pkt. 15c

Deep blue flowers growing 3-4 ft. tall and the most popular, June and July, leaves 2 1/2-in. long. Tallest species.

BALLOON VINE..... See Cardiospermum hal.

BARTONIA. See Mentzelia lindleyi.

BAUHINIA (bau-HIN-i-ah)

Mountain-ebony. Tropical trees, shrubs and vines of Pea Family. In the South they make a fine showing with their colorful racemes of white, purple and yellow flowers.

—hookeri. BAUH-1. Pkt. 50c

BEANS (Ornamental)

—Scarlet Runner. BEAN-1. Pkt. 15c  
1/4 lb. 45c

BEAUMONTIA

(boh-MON-shi-ah)

Vigorous woody tropical vines, probably best grown as a greenhouse vine in the U.S. (We would be pleased to hear from anyone having grown it here).

—grandiflora. BEAU-1. Pkt. 40c

Herald's Trumpet. Grown in warm greenhouses and outdoors in the South. Inside, plant it in a bed, training the vine to the roof; large fragrant white flowers, trumpet-shaped, in terminal clusters; prune wood back well for next year's flowers.

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PIONEER SEED COMPANY, DIMONDALE, MICHIGAN

MAY, 1948

—Semperflorens. Luminosa. BEG-14. Pkt. 25c

Fiery dark scarlet flowers, dark reddish brown foliage.

—Prima Donna. BEG-15. Pkt. 25c

Limpid rose shading to carmine at center, everblooming.

—Pink Bedder. BEG-22. Pkt. 50c

Erect habit of growth, bright pink flowers and very floriferous.

—Rose Pearl. BEG-23. Pkt. 50c

Bright rose flowers much like Gloire de Lourain; very good for pot culture.

—Blend. BEG-16X. Pkt. 25c

A blend of best named varieties in the B. semp. group. This is a high class blend.

—Saxier's Begonia Blend. BEG-17X. Pkt. 25c

This is a hand made mixture of all kinds of Begonias, made especially for those wanting to grow all different types. If purchased separately would cost many dollars.

BELLIS (BEL-is)

(Ox-Eye). Herbaceous annuals or perennials, 3-4 ft. tall, with large rather coarse leaves and yellow flowers. Easy culture, requiring a dry sunny position, they are useful for bold effects toward the back of the perennial border. Sow seed early in Spring when they usually flower the first year.

—salicifolia. BUPH-2. Pkt. 35c

A neat border plant with yellow flowers, a root runner and spreads rapidly, HP, 2 ft.

—speciosum. BUPH-3. Pkt. 45c

A showy Hungarian species with bold foliage and yellow flowers, HP, 5 ft.

CACALIA—see Emilia.

BUPHTHALMUM

**macrocarpus.** CALO-1. Pkt. 25c  
Large lavender flowers, 10-18 inches tall, June-July, a native of northern Montana.

### CALTHA (KAL-thah)

Small succulent perennials chiefly of N. Am., of Crowfoot Family. Thrive in marsh land near running water but can be grown in moist sections of the flower border. They are especially nice near water gardens, blooming in the spring and often again in the fall. Flowers are without petals, but the sepals of yellow, pink or white are very showy. They make long lasting cut flowers.

**acaposa.** CALT-2. Pkt. 50c  
Dwarf, with broad-rayed flowers borne singly on short stems; this come from the Himalayan mountains and is particularly desirable.

**rotundifolia.** CALT-1. Pkt. 25c  
Glossy arrowshaped leaves and rather large white flowers with a heart of golden anthers; beautiful for wet places in sun or light shade; 1 ft.

### CAMASSIA (kah-MAS-i-ah)

No. Amer. bulbous plants of Lily Family having blue or white flowers in graceful racemes and narrow grass-like foliage. Perfectly hardy, plant in groups of 10 or more, 3-4-in. apart, in border. The small species are good rock garden subjects.

**quamash.** CAMA-1. Pkt. 15c  
The common Camass, blue flowers, 18-in. tall, very good, May June.

**esculenta.** CAMA-2. Pkt. 30c  
Erect spikes of pale blue; excellent for cutting, HBb, 2 ft.

### CAMPANULA

#### (kam-PAN-eu-lah)

(Campanula Bells, Bell Flower, Harebell and Bluebell). Biennial and perennials with a few annuals. There are a great many species, of which we carry an exceptionally large number. The annuals are started from early planted seed and the biennials usually indoors early in March when they usually flower the first year. Handle the perennials in the regular way, getting them well rooted in their permanent position before frosts. They should be mulched with leaves where the winters are severe.

**annual. Mixed.** CAMP-1. Pkt. 15c  
A strain that will flower first year if sown early; blooms in 5-6 months, showy in the border and a good cut flower, 2-2½-in. tall.

**Single. Mixed.** CAMP-11X. Pkt. 10c:  
1/4 oz. 30c  
—Lavender. CAMP-34. Pkt. 25c  
Single lavender flowers of good form.

—fl. pl. Blue. CAMP-8. Pkt. 10c:  
1/4 oz. 35c  
Double blue flowers.

—fl. pl. Rose. CAMP-9. Pkt. 10c:  
1/4 oz. 35c  
Double rose flowers.

—fl. pl. Double. Mixed. CAMP-10X.  
Pkt. 10c; 1/2 oz. 40c  
—Calycanthema. Mixed. CAMP-12x.  
Pkt. 15c  
Cup-and-Saucer type.

—Violet-blue. CAMP-35. Pkt. 25c  
—Lavender. CAMP-36. Pkt. 25c  
—Choicest Mixed. CAMP-12T.  
Pkt. 25c

A select English grown strain of Cup-and-Saucer Canterbury Bells.

—fl. pl. Mixed. CAMP-10T. Pkt. 20c  
An English grown strain of double Canterbury Bells.

\* \* \* \* \*

—alliaefolia. CAMP-17. Pkt. 25c  
A very desirable border plant with creamy-white flowers, HP, 2½ ft.

—Aucher. CAMP-18. Pkt. \$1.00  
A rare species from the Caucasus, HP.

—barbata. CAMP-19. Pkt. 40c  
A distinct and pretty species with pale porcelain blue flowers, HP, 1 ft.

—bononiensis. CAMP-20. Pkt. 25c  
A tall branching type with pretty blue flowers in loose spikes, HP, 3 ft.

—capitata. Blue. CAMP-3. Pkt. 15c  
(Capitata Harebell). HP, blooming all summer; for edge of border or rock garden, partial shade, 10 inches.

—white. CAMP-4. Pkt. 15c  
Some as above, except color is white.

—Dwarf Hybrids. CAMP-21. Pkt. 40c  
New dwarf varieties and excellent for rock gardens; this is an English grown strain, HP, 6 inches.

—Isabel. CAMP-22. Pkt. 35c  
A distinct and good variety with large flat blue flowers, HP, 9 inches.

—Riverslea. CAMP-23. Pkt. 50c  
A very handsome form with large flatish clear blue flowers; fine, HP, 1 ft.

—White Star. CAMP-24. Pkt. 35c  
A charming compact English white flowered form, HP, 1 ft.

—celidifolia. CAMP-25. Pkt. 35c  
A fine border species, tallish habit and with pale blue flowers, HP, 2½ ft.

—lactiflora. CAMP-26. Pkt. 35c  
Handsome strong growing species, white to pale blue, HP, 2 ft.

—fragilis. CAMP-6. Pkt. 15c  
A rare type, celestial blue, fine for the rock garden or in pots, HP.

—garganica. CAMP-7. Pkt. 15c  
Elegant dwarf trailer, flowers blue, HP.

—hirsuta. CAMP-28. Pkt. 50c  
Pale blue flowers, hairy foliage, dwarf trailer, HP.

—glomerata superba. CAMP-29.  
Pkt. 35c  
A grand border plant having large heads of royal purple flowers, HP, 1½ ft.

—hybrida Abundance. CAMP-30.  
Pkt. 40c  
Very free flowering hybrid with lilac-blue flowers, HP, 6 inches.

—Norman Grove. CAMP-31. Pkt. 60c  
A real spine gem, free flowering and rich blue flowers, HP, 4 inches.

—imperialis. Mixed. CAMP-37.  
Pkt. 25c  
A pyramidal growth with upright flowers with colors rich and varied; this should be tried, HP, 2½ ft.

—latifolia. CAMP-32. Pkt. 30c  
Very large blue flowers in abundance, indigenous to England, HP, 2 ft.

—alba. CAMP-33. Pkt. 30c  
A pure white variety of this fine border plant, HP, 2 ft.

—persicifolia. CAMP-38. Pkt. 25c  
(Peach-leaved Bellflower). The most beautiful of the perennial sorts, violet-blue flowers in June-July in profusion; separate plants in early fall or spring for a vigorous growth, HP, 2 ft.

—alba. CAMP-27. Pkt. 30c  
A beautiful white form of this species, 2 ft.

—New Giant Hybrids. CAMP-39.  
Pkt. 40c  
Marvelous new giant varieties grown for us from a fine English collection, HP, 4 ft.

—gr. fl. Telham Beauty. CAMP-40.  
Pkt. 40c  
This has very large bells of a beautiful china-blue, HP, 2 ft.

—Poscharskiana. CAMP-41. Pkt. 30c  
Spreading habit with sprays of lovely pale blue flowers, HP, 4 inches.

—pseudo. Rainieri. CAMP-42. Pkt. 35c  
This is a charming little plant with large open purple-blue flowers, HP, 6 inches.

—rapunculoides. CAMP-14. Pkt. 20c  
Perennial; a row makes a strikingly beautiful hedge, flowers soft blue to deep violet; the bell-shaped flowers hang loosely from the stems giving the plant a pleasing appearance, 3 ft.

—Rock Garden Species. Mixed.  
CAMP-47. Pkt. 50c

An English grown strain of species useful for rock gardens and walls, HP, 9 inches.

—sarmatica. CAMP-44. Pkt. 50c  
Very distinct dwarf species with pale blue flowers, HP, 1 ft.

—Rock Garden Species. Mixed.  
CAMP-47. Pkt. 50c

An English grown strain of species useful for rock gardens and walls, HP, 9 inches.

—speculum gr. fl. CAMP-16. Pkt. 10c  
—tubinata. CAMP-45. Pkt. 40c  
Erect cup-like flowers of violet-blue; a neat dwarf habit, HP, 6 inches.

—palida. CAMP-46. Pkt. 40c  
Pale blue form with large and conspicuous flowers, HP, 3 inches.

—sarmatica. CAMP-44. Pkt. 50c  
Very distinct dwarf species with pale blue flowers, HP, 1 ft.

—Rock Garden Species. Mixed.  
CAMP-47. Pkt. 50c

An English grown strain of species useful for rock gardens and walls, HP, 9 inches.

—C. MEDIUM: (Common Canterbury Bells)  
This species is the well known Canterbury Bell, in all its forms. They are biennials. Flowers June-July, 3 ft.

—Single. Mixed. CAMP-11X. Pkt. 10c:  
1/4 oz. 30c

—Lavender. CAMP-34. Pkt. 25c  
Single lavender flowers of good form.

—fl. pl. Blue. CAMP-8. Pkt. 10c:  
1/4 oz. 35c  
Double blue flowers.

—fl. pl. Rose. CAMP-9. Pkt. 10c:  
1/4 oz. 35c  
Double rose flowers.

—fl. pl. Double. Mixed. CAMP-10X.  
Pkt. 10c; 1/2 oz. 40c

—Calycanthema. Mixed. CAMP-12x.  
Pkt. 15c  
Cup-and-Saucer type.

—Violet-blue. CAMP-35. Pkt. 25c  
—Lavender. CAMP-36. Pkt. 25c  
—Choicest Mixed. CAMP-12T.  
Pkt. 25c

A select English grown strain of Cup-and-Saucer Canterbury Bells.

—fl. pl. Mixed. CAMP-10T. Pkt. 20c  
An English grown strain of double Canterbury Bells.

\* \* \* \* \*

—alliaefolia. CAMP-17. Pkt. 25c  
A very desirable border plant with creamy-white flowers, HP, 2½ ft.

—Aucher. CAMP-18. Pkt. \$1.00  
A rare species from the Caucasus, HP.

—barbata. CAMP-19. Pkt. 40c  
A distinct and pretty species with pale porcelain blue flowers, HP, 1 ft.

—bononiensis. CAMP-20. Pkt. 25c  
A tall branching type with pretty blue flowers in loose spikes, HP, 3 ft.

—capitata. Blue. CAMP-3. Pkt. 15c  
(Capitata Harebell). HP, blooming all summer; for edge of border or rock garden, partial shade, 10 inches.

—white. CAMP-4. Pkt. 15c  
Some as above, except color is white.

—Dwarf Hybrids. CAMP-21. Pkt. 40c  
New dwarf varieties and excellent for rock gardens; this is an English grown strain, HP, 6 inches.

—Isabel. CAMP-22. Pkt. 35c  
A distinct and good variety with large flat blue flowers, HP, 9 inches.

—Riverslea. CAMP-23. Pkt. 50c  
A very handsome form with large flatish clear blue flowers; fine, HP, 1 ft.

—White Star. CAMP-24. Pkt. 35c  
A charming compact English white flowered form, HP, 1 ft.

—celidifolia. CAMP-25. Pkt. 35c  
A fine border species, tallish habit and with pale blue flowers, HP, 2½ ft.

—lactiflora. CAMP-26. Pkt. 35c  
Handsome strong growing species, white to pale blue, HP, 2 ft.

—fragilis. CAMP-6. Pkt. 15c  
A rare type, celestial blue, fine for the rock garden or in pots, HP.

—garganica. CAMP-7. Pkt. 15c  
Elegant dwarf trailer, flowers blue, HP.

—hirsuta. CAMP-28. Pkt. 50c  
Pale blue flowers, hairy foliage, dwarf trailer, HP.

—glomerata superba. CAMP-29.  
Pkt. 35c  
A grand border plant having large heads of royal purple flowers, HP, 1½ ft.

—hybrida Abundance. CAMP-30.  
Pkt. 40c  
Very free flowering hybrid with lilac-blue flowers, HP, 6 inches.

—Norman Grove. CAMP-31. Pkt. 60c  
A real spine gem, free flowering and rich blue flowers, HP, 4 inches.

—imperialis. Mixed. CAMP-37.  
Pkt. 25c  
A pyramidal growth with upright flowers with colors rich and varied; this should be tried, HP, 2½ ft.

—latifolia. CAMP-32. Pkt. 30c  
Very large blue flowers in abundance, indigenous to England, HP, 2 ft.

—alba. CAMP-33. Pkt. 30c  
A pure white variety of this fine border plant, HP, 2 ft.

—persicifolia. CAMP-38. Pkt. 25c  
(Peach-leaved Bellflower). The most beautiful of the perennial sorts, violet-blue flowers in June-July in profusion; separate plants in early fall or spring for a vigorous growth, HP, 2 ft.

—alba. CAMP-27. Pkt. 30c  
A beautiful white form of this species, 2 ft.

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This is a charming little plant with large open purple-blue flowers, HP, 6 inches.

—rapunculoides. CAMP-14. Pkt. 20c  
Perennial; a row makes a strikingly beautiful hedge, flowers soft blue to deep violet; the bell-shaped flowers hang loosely from the stems giving the plant a pleasing appearance, 3 ft.

—Rock Garden Species. Mixed.  
CAMP-47. Pkt. 50c

An English grown strain of species useful for rock gardens and walls, HP, 9 inches.

—speculum gr. fl. CAMP-16. Pkt. 10c  
—tubinata. CAMP-45. Pkt. 40c  
Erect cup-like flowers of violet-blue; a neat dwarf habit, HP, 6 inches.

—palida. CAMP-46. Pkt. 40c  
Pale blue form with large and conspicuous flowers, HP, 3 inches.

—sarmatica. CAMP-44. Pkt. 50c  
Very distinct dwarf species with pale blue flowers, HP, 1 ft.

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This species is the well known Canterbury Bell, in all its forms. They are biennials. Flowers June-July, 3 ft.

—Single. Mixed. CAMP-11X. Pkt. 10c:  
1/4 oz. 30c

—Lavender. CAMP-34. Pkt. 25c  
Single lavender flowers of good form.

**CHRYZOPSIS (kris-OP-sis)**

(Golden Aster). Daisy-like plants with yellow flowers on 1-3 ft. plants, at home in the dry sunny part of wild garden. Hardy perennials.

—*falcata*. **CHRY-3. Pkt. 50c**  
This is recommended highly as a rock garden perennial, with silky gray foliage and pretty yellow flowers, HP, 1½ ft.

—*marianna*. **CHSO-2. Pkt. 25c**  
Large Aster-like flowers in a pretty rich yellow, blooming Aug.-Nov., HP, 1½ ft.

—*villosa*. **CHSO-1. Pkt. 25c**  
Golden Aster. Yellow flowers, 1-ft. tall, May-June.

**CINERARIA (sin-e-RAY-ri-ah)**

(Bot. *Senecio Cruentus*). They are strictly greenhouse plants, altho perennials, and are grown mainly as winter flowering pot plants, new stock is grown each year. Seed is best sown April-June but also till Sept. for later flowers; soil, sandy loam, containing 1/3 leaf mold. Pot up seedling as soon as large enough and keep moist and cool. Liquid manure is beneficial AFTER buds appear. Other species will be listed under *Senecio*, which see.

—*Hybrid gr. II. Multiflora nana. Mixed.* **CIN-1. Pkt. 50c**

Dwarf compact plants producing masses of small flowers in a showy color range in self colors. Claimed to be the best pot plant.

—*Multiflora Maxima, Berlin Market.* **CIN-2. Pkt. 50c**  
Larger flowers and plants somewhat higher than *C. multiflora nana* but as rich flowering and showing the same good display of colors, 15-in. tall.

—*multiflora nana*. **CIN-7. Pkt. \$1.00**  
Very fine English grown strain in self colors, GP\*, 1 ft.

—*stellata*. **CIN-6. Pkt. \$1.00**  
Star Cineraria. Very pretty small star-shaped flowers in immense heads, colors much varied and very nice for cutting, GP\*, 3 ft.

—*grandiflora*. **CIN-5. Pkt. \$1.00**  
A splendid English grown strain with very large flowers and fine form, in beautiful colors, dwarf habit and compact plant; first quality in every way and unsurpassed, GP\*, 1 ft.

—*Sister's Rainbow Mixed*. **CIN-3. Pkt. 50c**  
Hybrid gr. fl. large flower heads on compact plants in a lovely color range.

—*maritime, Diamond*. **CIN-4. Pkt. 25c**

**NOTE: Greenhouse growers.**  
The *Cinerarias* marked GP\* are all of the very highest quality for greenhouse growing and cannot be excelled; and as soon as seed can be gotten through from Germany, we also expect to have some of the finest strains grown there.

**CLARKIA (KLAHR-ki-ah)**

(Rocky Mountain Garland). Easily grown hardy annual, sunny locations and any light garden soil and produces graceful showy flowers in delicate rose or purple. Growing 2-ft. tall it is very good for mass plantings. July-Aug. If flowers are cut in bud they last an extra long time.

*climatidea*. **CLAR-1. Pkt. 30c**

Charming blue bell-shaped flowers with white and yellow centers, HP, 1 ft.

—*pubescens superba*. **CLAR-4. Pkt. 20c**

A very free growing species with large yellow flowers with a dark blotch in the center, HP, 3 ft.

—*Mixed*. **CLAR-4X. Pkt. 10c; ½ oz. 30c**

**CODONOPSIS****(koh-doh-NOP-sis)**

Plants of the Bellflower Family, grown in the border, some being vines. Require winter protection in the North.

—*climatidea*. **COD-1. Pkt. 30c**

Charming blue bell-shaped flowers with white and yellow centers, HP, 1 ft.

—*pubescens superba*. **COD-4. Pkt. 20c**

A very free growing species with large yellow flowers with a dark blotch in the center, HP, 3 ft.

—*Mixed*. **COD-4X. Pkt. 10c; ½ oz. 30c**

**COEOGYNE (see-LOJ-i-nee)**

Tropical epiphytic orchids with long racemes of white or greenish-yellow flowers; native of the tropics, grown under glass in the U.S. in moderately warm atmosphere, doing best in hanging baskets; soil mixture of osmunda and sphagnum.

—*barbata*. **COEL-1. Pkt. \$1.00**

**COFFEA (kaw-FE-ah)**

Coffee. Can be grown in the South and in greenhouses. Their foliage is shining and the flowers fragrant and white, followed by attractive red berries. Use half peat and half loam for the soil.

—*arabica*. **COFF-1. Pkt. 50c**

This is the commercial species grown for coffee.

—*COIX (KOH-iks)*

A genus of tall broad leaved grasses.

—*lachryma-jobi*. **COIX-1. Pkt. 15c**

(Job's Tears). Altho a perennial it is generally grown as an annual, not standing northern winters. Plant seed in early to mid-May in open ground. They grow 4-ft. tall; the seeds hang in clusters. If cut before seed is ripe the grass makes fine dried ornamental grass; the seeds also can be used as beads.

—*Double Mixed*. **CLAR-1. Pkt. 10c**

This species has smooth reddish stems growing 3-ft. tall. Colors salmon, crimson, purple, scarlet and white. Most popular.

—*puhella, alba*. **CLAR-2. Pkt. 10c**

Lower growing than *C. Elegans*, and more slender leaves. This is a white variety.

—*Rosy Morn.* **CLAR-10. Pkt. 20c**  
Very double rose-pink flowers.

—*Salmon Queen.* **CLAR-11. Pkt. 20c**  
A very pretty double salmon-rose variety.

—*Scarlet Queen.* **CLAR-12. Pkt. 20c**  
Most brilliant double variety, either for beds or for cutting.

(Spike Flower). Easily grown from seeds

—*Double Mixed*. **CLAR-1. Pkt. 10c**

Hand made blend of the best kinds, including seeds saved from one of the best European collections; also contains all above offers.

—*Prize Strain Mixed*. **COLE-7. Pkt. 50c**

An English grown strain, large leaves in dark apricot; rose and copper shades, HHP\*, 3 ft.

—*COLLINSIA (ko-LIN-si-ah)*

Hardy attractive free blooming annuals used in rock gardens and edgings; they are pretty, low growing plants in whorls of 5-6 blossoms and 3 or more whorls on every stem. Sow seeds outdoors in the fall and protect or sow early in the spring. Prefer a dry location.

—*bicolor, Mixed.* **COLL-1. Pkt. 15c**

In rose, white, lilac, violet and blue, June-Oct., 15-in. tall.

—*verna*. **COLL-2. Pkt. 50c**  
(Blue-eye Mary). A sort of rarity now-a-

rich loamy soil on alkaline side—add lime—and they respond to an annual dressing of rotted manure. There are many kinds and all are of ornamental value, the vines being especially good on fences, arbors, porches, etc. Prune those that flower on last year's wood, after they flower and those that flower from young basal shoots should be cut back to the ground each spring.

—*columbianum*.

**CLEM-2. Pkt. 25c**

Try this trailing purple Clematis with vine Honeysuckle (*Lonicera Ciliata*) on a shaded wall 10-ft. June.

We have a small amount of berries of

*Lonicera ciliata*, qt 30c per packet while they last.

—*douglasii*.

**CLEM-1. Pkt. 25c**

Flower-clusters Clematis with

white flowers, 1-2 ft. tall.

—*montana*.

**CLEM-4. Pkt. 25c**

A vigorous grower, having fragrant

white anemone-like flowers in May and June; easily grown from seed.

—*tricolor*.

**CONV-4. Pkt. 20c**

(Minor *Convolvulus*). Deep blue, yellow and white flowers, HA, 1½ ft. A bush growing form.

—*tricolor, Crimson Rambler.*

**CONV-1. Pkt. 10c**

Bright ruby-red, rapid climber, has been

sold much as Scarlet O'Hara.

—*Dwarf, Royal Ensign.*

**CONV-3. Pkt. 10c**

The deepest blue and brightest of all

annuals, while halo and gold throat; for

edging and borders they are ideal, flower-

ing continuously all summer long, 1-ft.

—*Major Mixed.*

**CONV-2. Pkt. 10c**

Climbing, mixed colors.

—*CORDIA (KAUR-di-ah)*

Tropical trees and shrubs, for green-

house or outdoors in the far S., thriving

in light rich soil, easily grown from seed.

—*boissieri*.

**CORD-1. Pkt. 25c**

One of the best with quite large blue

flowers at the end of 6 inch, nearly

prostrate stems set with tiny triangular leaves.

—*speciosus*.

**COST-1. Pkt. 50c**

A tall growing species, upright, some-

what woody at base, with narrow foot-

long leaves, silky beneath; above red

bracts are borne the large flowers with

bell-shaped staminodium nearly 4 inches

across, white with yellowish center, grows

to 10 ft.

—*COTONEASTER*

**(koh-toh-ne-AS-ter)**

Deciduous or evergreen shrubs of tem-

perate zone, mostly from China, belonging

to Rose Family. They are very ornamental

and while a little tender in the N. they

stand the winters well in the central states

without protection. They can be grown in

pots at the start until ready to be set out

in their permanent locations. Sunny loca-

tions and well drained soil.

—*Double Sunburst*.

**COTN-2. Pkt. 20c**

Flowers 1½-2-in. across, beautiful golden

yellow, long lasting, comes about 80%

double, excellent for cutting.

—*Mayfield Giant*.

**COTN-3. Pkt. 10c**

Large golden yellow on a very vigorous

plant, longer and stouter stems and ray

petals broader.

—*pubescens superba*.

**COTN-4. Pkt. 20c**

A very free growing species with large

yellow flowers with a dark blotch in the

center, HP, 3 ft.

—*Mixed*.

**COTN-4X. Pkt. 10c; ½ oz. 30c**

One of the most beautiful in flower and

fruit; grows to 20 ft., not hardy in North.

—*CROCUS (CRO-cus)*

**CROC-1. Pkt. 30c**

While Crocus are generally grown from

corms, they can also be grown, with much

interest, from seed, and especially many

lieve this to be the best strain of Dwarf Dahlias obtainable. Few blooms measure less than 3-in. and on 12-in. stems, profusely borne the first year. Some lovely new colors are: shades of canary yellow, scarlet, terra cotta, apricot, crimson, lavender, pink, purple, maroon, buff, cream, white, etc.

**Giant Flowering.** DAHL-3. Pkt. 15c. Giant flowers, the seed saved from an exhibition collection.

**Mignon.** DAHL-8. Pkt. 25c. Very large single flowers in bright colors, 1½ in.

**Paeony-flowered.** DAHL-9. Pkt. 25c. Double and semi-double flowers in enormous size, an English grown strain.

**Unwin's Dwarf.** DAHL-10. Pkt. 30c. Reselected and improved English strain having semi-double flowers, 2 ft.

### DATURA (dah-TEU-rah)

Annuals and perennials found in the warmer regions, a few being very ornamental on account of their large trumpet-shaped flowers. Easily grown, treat as tender annuals.

**black.** DATU-6. Pkt. 30c.

#### —*fastuosa.*

**DATU-1.** Pkt. 10c. (Angel's Trumpet). Double Mixed.

#### —*Motel.*

(Also known as *D. cornucopia*). Annual to 5-ft. with large double flowers, whitish inside and violet outside with purple calyx.

#### —*Trumpet-in-Trumpet.*

**DATU-5.** Pkt. 20c. Blossoms intensely double and ruffled.

Comes mostly in soft yellow, with occasional variations into rich cream or pure white, 36-in.

#### —*wrighti.*

**DATU-4.** Pkt. 20c.

An easily grown vigorous annual with very large flaring trumpet flowers of palest roseate lavender, texture softly downy, 3 ft. (Syn. *D. Meteloides*).

### DAUBENTONIA

#### (daw-ben-TOHN-ya)

Herbs and shrubs of the Pea Family, with leaves divided into many pairs of small leaflets. The pea flowers are borne in loose racemes, and range in color from white to yellow, red-purple, and orange-red. Require indoor culture in the North, and are rather short-lived.

#### —*texana.*

**DAUB-1.** Pkt. 25c.

## DELPHINIUM

Under this heading are listed the perennial species; the annuals are listed under Larkspur. Delphiniums are probably our most popular flower, especially in the better planned gardens. They really are very easily grown; fine plants require air circulation, rich light alkaline soil and good seed strains. Locate in the garden so that they have some protection from the strong winds, give space between plants, not closer than 2-ft., and if you want them for cut flowers only, plant in 3-ft. rows, with plants 2½-ft. apart in the row. A light sprinkling of agricultural lime, with well rotted manure is best for the soil; after plants have become established a mulch over the soil is fine. Usually the plants can be cut back after flowering, and a second bloom will result; a light dressing of well rotted manure at this time will benefit the plants. The best time to plant seed is about Aug. 1st, when new crop seed can be had and the plants will reach sufficient size to make the proper size for blooming the following summer; however, seed can be sown anytime from early spring to Sept. The handling of the seedlings and plants is the same as with any regular sowing. You will find that the varieties and strains of those we offer are the very best obtainable, regardless of the price. Those using quantities of seed for plants, etc., should write us for quantity quotations, which will depend upon time of ordering and available seed supply; it will pay you to ask.

### PLANTING DELPHINIUM SEED IN THE SPRING:

Germination can be gotten from early planted seed, Feb.-April, if you will place the seed, as soon as received, in the freezing compartment of your refrigerator for 4-6 days and then plant immediately. Prepare the soil carefully, water it well, and let stand, during this period, so that the seed can be immediately started on their mission. As a rule 5-6 inch pots are best as you are not as liable to wash seeds all around as is the case with flats. Keep glass over them but ventilate well and remove condensation daily. Remove glass immediately when germination starts. Delphiniums germinate best in the dark (cover the glass with paper) and in warm temperature.

### PACIFIC GIANT SERIES:

#### (Vetterle & Reinelt Original Seed)

One of the most popular strains at present having immense spikes 2½-3½-in. with flowers closely set which does not scatter after cutting. They come about 65% mildew resistant and 100% double; a truly remarkable strain.

**Prices on all series: Pkt. 35c; 3 pkts. 90c;**

**Black Knight Series.** DELP-1. Pkt. 35c

The darkest violet. Individual flowers 2½-3-inches in diameter; of beautiful round form, with heavy velvety texture, which gives the color luminosity and vividness not seen before in Delphinium. Very long, well-formed spikes; a true show flower with black bees.

**Blue Bird Series.** DELP-2. Pkt. 35c

A true blue Delphinium has been the hardest thing to produce. We can safely recommend this series as being the clearest medium blues, with white bees. They not only come true to color but carry well-formed, round flowers 2½-in. in diameter, on very long, graceful spikes. The habit is all one could desire in modern Delphinium and this series sets a new standard in blues of today.

**Blue Jay Series.** DELP-3. Pkt. 35c

The color is striking, clear medium to dark blue; very intense and alive, with dark, contrasting bee.

**Camelier Series.** DELP-4. Pkt. 35c

A clear lavender self with white bee, possessing classical perfection of form of the individual flowers, which are very round and attain very large size, averaging 3-inches in diameter. Beautifully balanced spikes, combined with excellent growing habits.

**Galahad Series.** DELP-5. Pkt. 35c

The greatest achievement in giant whites, fully worthy of its name, which possesses all the qualities one expects to find in a fine Delphinium. The standard attained in this series is perhaps respons-

ible for the wide popularity it met, ranking in demand next to the blues. The clear white flowers, with white bees, are of large size, reaching often 3-in. in diameter, combined with glistening, heavy texture.

#### Guinevere Series.

**DELP-6.** Pkt. 35c

A clear, pink-lavender self with white bee, with very large individual flowers averaging up to 3-in. in diameter. This is a true exhibition type and a beautiful garden plant.

#### King Arthur Series.

**DELP-7.** Pkt. 35c

This is still one of the most brilliant Delphiniums so far developed. The color is a rich, royal purple, with a velvety texture and large white bee, and beautifully formed, long spikes are carried on thin, woody stems.

#### Round Table Series.

**DELP-9.** Pkt. 35c

As the name implies, this represents all of the color combinations of the Knights and their Ladies which will eventually be introduced. This year some three hundred different crosses were used to make up this group, combining all the newest color developments and possessing size that will make them invaluable for show purposes.

#### Summer Skies.

**DELP-8.** Pkt. 35c

Light, heavenly blue of a summer sky with white bees representing the fleecy clouds; a color long sought in the large hybrid Delphinium. The 1947 series has reached stability where they come almost 100% true to color from seed. As a class this is the finest blue Delphinium today in existence.

#### Scier Series Blend.

**DELP-10.** Pkt. 35c

A carefully hand made blend of the above series, not a mixture, especially of value to the flower grower with limited space.

### SERIES MIXTURE

#### Series Mixture.

**DELP-11X.** Pkt. 25c;

1/4 oz. \$2.00

Contains most of the series, but based mainly on surplus. Quality exactly the same as above.

**NOTE:** Those wanting first delivery in July or Aug. on new crop seed should book their orders as early as possible. The 1947 crop was the poorest in our experience, very late, with the seed actually dribbling in. It was most unsatisfactory.

The following Beardedonna types of Delphinium, while not as large as the Pacific Giant Strains, they, however, are much to be preferred in those sections where the summers are hotter and not so moist. They will, in these sections, succeed where the others will fail. One will just have to try them out in his own particular garden and treatment. More resistant to disease.

#### —belladonna. True.

**DELP-12.** Pkt. 20c;

1/4 oz. \$1.00

Lovely clear blue.

#### —Blue Grotto.

**DELP-18.** Pkt. 35c

A deep indigo-blue variety, early, English grown, HP, 3 ft.

#### —Cliveden Beauty.

**DELP-13.** Pkt. 20c;

1/4 oz. \$1.50

A lovely turquoise blue, a good florist strain too.

#### —Bellmosum.

**DELP-15.** Pkt. 15c;

1/4 oz. \$1.25

Rich deep blue form of Belladonna with small white bee, flowers 2½-in. across.

#### —Hollyhock Strain.

**DELP-14.** Pkt. 25c;

1/4 oz. \$1.75

Selections of light shades, exceptionally fine for florist's use.

#### CHINENSIS:

**DI-1.** Pkt. 10c

While these are perennials they have the added advantage of being grown as annuals from early started seed. They are robust and sure bloomers. Popular for cut flowers. Last for many years and covered with flowers all summer and fall; rarely need staking.

#### —Tall Mixed.

**DELP-16.** Pkt. 15c;

oz. \$1.

2-3 ft. tall, all shades of blue and white.

#### —Dwarf Mixed.

**DELP-17.** Pkt. 15c;

oz. \$1.25

About 1 ft. tall, in all shades of blue and white.

#### DENDROBIUM

#### (den-DROH-bi-um)

Epiphytic orchids, tropical, having long drooping racemes of showy flowers in shades of rosy purple and mauve, white or pale green and having a sac or spur and a lip. There are a great many species and some very popular for greenhouse growing. Divided into evergreens and deciduous, the former requiring a moist warm atmosphere, the latter a high moist atmosphere during the growing season but cooler and drier care during the late fall, winter and early spring. See Orchids.

#### —fimbriatum oculatum.

**DEDR-1.** Pkt. 90c

Brilliant orange-yellow, with rich reddish-brown spot on the fimbriated lip; flowers 2-3 inches across, in pendulous racemes of 6-12 blooms; deciduous and a very easy species for the amateur.

#### —nobile.

**DEDR-2.** Pkt. 90c

A very free blooming species with large purple-tipped white flowers.

#### DESMODIUM (des-MOH-di-um)

Tick-leaf or Tick-clover. Grows in dry

woods and fields and may be used in the border or wild garden. Pea Family.

#### —gyrans.

**DMOD-1.** Pkt. 35c

Telegraph Plant. Grown in the greenhouse; a tender Asiatic species with purple flowers; its leaflets have the power to move in several directions; perennial grown as an annual, easy from seed.

#### CARNATIONS

moisture collects and they can not quickly dry out.

#### —allwoodi.

**DIAN-1.** Pkt. 25c

A hardy hybrid race of *D. plurianus* and *D. caryophyllus*. Flowers from early spring till late fall in all colors except yellow; petals entire or variously fringed; have the free flowering and clove scent of the plurianus with the heavy texture of the carnations. About 25 seeds per packet. 5 for \$1.00.

#### —alpinus.

**DIAN-2.** Pkt. 20c;

1/16 oz. 55c

Flowers first year from seed, July-Aug.; prefers lime soil, fragrant, flowers single, in shades of lavender, rose and pink and in many different colored centers, 4-8-in. tall.

#### —arenarius.

**DIAN-3.** Pkt. 20c

Deeply fringed and richly fragrant rock garden species, white, cream and pale pink flowers; has sweet fragrance found in all Dianthus, very desirable, 6-in. tall.

#### —caeruleus, gr. fl.

**DIAN-16.** Pkt. 15c

(Cheddar Pinks). Tufted foliage, 3-in. tall, 6-in. flower stems, bright pink daintily fringed flowers in May and June; ideal rock garden plant.

#### —deltoides.

**DIAN-77.** Pkt. 50c

(Maiden Pink). Small rosy purple flowers; dwarf turf habit, and fine for edging or the rock garden, HP, 6 inches.

#### —deltoides, Brilliant.

**DIAN-26.** Pkt. 25c

flats and handled in the cold frame until large enough to put in outdoor beds.

—*pulcherrimum*. DIER-1. Pkt. 25c

Reddish purple flowers, tall and slender habit, HP, 4 ft.

### DIGITALIS (dij-i-TAY-lis)

FOX GLOVE. Erect biennial and perennial plants. Their stately spikes on stems 3-ft. or more high are crowded with thimble-like flowers, beautifully spotted. They are easily grown from seed sown in the spring or summer for flowers following season.

—*ambigua*. DIG-3. Pkt. 30c

Spikes of yellow flowers and a good perennial species (Syn. *grandiflora*), HP, 3 ft.

—*laevigata*. DIG-4. Pkt. 30c

A very pretty Foxglove with bronze-yellow flowers and whitish lip, HP, 3 ft.

—*lutea*. DIG-5. Pkt. 50c

A rare and attractive yellow flowered Foxglove, HP, 3 ft.

—*marianna*. DIG-6. Pkt. 40c

A distinct species with white flowers overlaid with golden chestnut, HP, 3 ft.

—*maculata superba*. DIG-7. Pkt. 30c

Giant spotted plants in a beautiful mixture, English grown strain, HP, 3 ft.

—*purpurea gloxiniae-flora*. The Shirley. DIG-1. Pkt. 15c

Giant hybrid with blotted throat, extra color range, white to shell pink to deep rose, many nicely blotted or spotted with crimson, maroon or chocolate, largest flower spikes, 6 ft.

—*Finest Mixed*. DIG-2. Pkt. 15c

Spotted throats, extra fine.

—*thaspi*. DIG-8. Pkt. 50c

A dwarf species with crimson flowers and pale throat marked with blood-red dots, HP, 1 1/2 ft.

### DIMORPHATHECA

#### (dy-mor-fo-THEE-kah)

(African Daisy). Hardy annuals 1-2 ft. for sunny locations, blooming from early summer till frost; daisy-like flowers in ray and disc types, excellent for low beds and in rockery, especially for late color in the fall. In Cal. and Fla. and other milk states it is planted in the fall for winter flowers.

—*curantiaca*. Orange Improved. DIM-1. Pkt. 10c

Deep pure orange-gold, 1 ft.

—*Golden West*. DIM-7. Pkt. 20c

(Fairy Bells). A genus of pretty perennials.

—*hybrids*. DIM-2. Pkt. 15c; 1/2 oz. 35c

Containing all colors, pure white to red and bluish, including lemon, sulphur and bright golden yellow, light orange, reddish yellow and pale salmon rose, 1 ft.

—*Special Mixture*. DIM-3. Pkt. 10c; 1/4 oz. 70c

Containing all varieties of this species.

—*calendulacea*. Lemon Queen. DIM-10. Pkt. 20c

Lemon colored flowers with blue-black central zone, pretty, HHA, 1 1/2 ft.

—*berberiae*. DIM-8. Pkt. 25c

S. African annual with blue and white flowers, HHA, 2 ft.

—*Salmon Beauty*. DIM-9. Pkt. 25c

Pretty salmon shades, HHA, 1 1/2 ft.

—*sinuata*. DIM-5. Pkt. 20c

Brightest, glossiest golden orange, flowers early and continue for 3 months, altogether charming.

—*All Mixed*. DIM-6X. Pkt. 10c; 1/2 oz. 75c

### DISPORUM (dy-SPOH-rum)

Fairy Bells. Genus of liliaceous perennial plants of Lily Family with drooping white or yellowish flowers found in woods. The flowers are followed by attractive red or yellow berries. Very lovely in the wild garden, especially. Similar to Solomon's Seal.

—*oregum*. DISP-1. Pkt. 20c

Creamy white flowers, 2-ft. tall.

### DODECATHHEON

#### (doh-de-KATH-e-on)

Shooting Star, American Cowslip. Small American perennial plants of Primrose Family, basal leaves and nodding Cuckoo-men-like flowers in rounded clusters. Flowers are white, rose or purple with reflexed petals. They grow naturally in half shaded woodland or rather damp mountain meadows, thus should be given moist, rich soil in partial shade in rock or wild garden or naturalizing, all with good drainage.

—*radicatum*. DODE-2. Pkt. 25c

Native of Mont. smooth light green leaves, pink or rose-red flowers on stout stem, 2-ft. tall, May-June, a fine one for a cool wet place in the garden; blooms at 6-in.

—*radicatum*. DODE-2. Pkt. 25c

Native of Mont. smooth light green leaves, pink or rose-red flowers on stout stem, 2-ft. tall, May-June, a fine one for a cool wet place in the garden; blooms at 6-in.

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—*radicatum*. DODE-2. Pkt. 25c

Native

**GALTONIA (gaul-TOH-nee-ah)**

Giant Summer Hyacinths. So. African bulbs of the Lily Family producing in mid-summer tall spikes bearing fragrant white or greenish drooping bell-shaped flowers. They are not hardy in the North and should be dug in the fall and stored indoors; in milder sections they are grown as perennial, especially with some winter protection.

—*candidans*. **GALT-1.** Pkt. 25c  
Large Snowdrop-like flowers in long racemes, HBb, 3 ft.

**GAMOLEPIS**

—*targetes*. **GAMO-1.** Pkt. 20c  
Hardy annual from Europe, very early flowering, dwarf, flowers yellow.

**GAULTHERIA**

(gawl-THEE-ri-ah)

Evergreen woody plants of the Heath Family having rather small white, blue, red or black flowers. Most species are quite dwarf, some even prostrate, and are suited to the rock garden or the front of evergreen plantings; all are very desirable and very popular with collectors of ericaceous plants. The native Winter-green is *G. procumbens*. Give the same treatment as Heaths and Rhododendrons, sandy peaty soil with plenty of moisture, best in light shade. Most species are not fully hardy in the North and must have protection.

—*hookeri*. **GAUL-1.** Pkt. 50c  
A rare species from the Himalayas, apparently not in cultivation here as yet. The seed was just received from our collector in India.

**GAURA (GAU-rah)**

Perennial N. Am. plants with spikes or clusters of rose or white flowers for the border or wild garden.

—*lindheimeri*. **GAUR-1.** Pkt. 15c  
Native of La. and Texas, flowers white with rose cups, HA, 4 ft., perennial in dry soils.

**GAZANIA (gah-ZAY-nee-ah)**

Old time favorites for flowering in the greenhouse or for bedding outdoors during the summer; they have narrow leaves in varying forms mostly covered beneath with dense white woolly hairs; colors range from white, thru orange and yellow to scarlet, beautifully spotted at the base of the petals; sandy loam with humus, a sunny location suits them best.

—*splendens* Mixed. **GAZ-1.** Pkt. 20c  
Hardy perennial, its trailing habit makes it a good rockery plant; flowers bronze, red, orange, yellow, cream, and white with brown and yellow spots about the center; flowers first summer and also a favorite in the cool greenhouse, 12 ft.

**GENTIANA (JEN-sham)**

All require good drainage and resent hot weather. Best started from seed which should be as fresh as possible, seeds are very small and usually slow to germinate. Some of the finest blues are found in the group and the plants are so beautiful and interesting that they will repay the trouble taken to grow them. We might suggest that you may place your order in advance for delivery as the fresh seed comes in. Some come from India.

—*armenum*. **GERN-5.** Pkt. 25c  
Dark red flowers, robust habit and a fine border plant, HP, 1 1/2 ft.

—*dahurica*. **GENT-7.** Pkt. 60c  
A rare and distinct species having dark blue flowers, HP, 1 ft.

—*moorecroftiana*. **GENT-2.** Pkt. 25c  
Plant with ascending many branches bearing beautiful funnel-shaped sky-blue flowers.

—*quadrifolia*. **GENT-4.** Pkt. 25c  
Dwarf plant bearing numerous stray blue flowers.

—*Rochelli*. **GENT-8.** Pkt. 25c  
A strong growing species with clusters of blue flowers, HP, 1 ft.

—*septemfida*. **GENT-9.** Pkt. 30c  
A real handsome species with blue spotted flowers, HP, 1 ft.

—*sikkimensis*. **GENT-5.** Pkt. 50c  
One of the easiest species making mats of many shoots up to 6 inches tall. Flowers are rather tubular, about 1/4 inch across, blue with white throat.

—*stylophora*. **GENT-6.** Pkt. 50c  
A tall species, sometimes 6 ft. with leaves up to a foot in length and 3 inches across; flowers are widely funnel-shaped and up to 2 inches in length and straw-yellow. A very stately plant for the shady border, in rich soil; it may be slightly tender in the North.

—*tangleensis*. **GENT-3.** Pkt. 25c  
A much branched tall plant, flowers funnel-shaped, blue.

**GERANIUM (jee-RAY-nee-um)**

The Geranium of the florist and the common house plants are listed under *Pelargonium*; here under this list are the true Geraniums, mostly hardy plants. They have mostly lobed or divided leaves and showy flowers of many colors, usually under 1/2-inch but sometimes as large as 1 1/2-inches. They are excellent for the border and the rockery and do well in any good soil; some are well adapted for naturalizing.

—*collinum*. **GERN-4.** Pkt. 50c  
A very variable species that in its best forms is almost equal to the incomparable *G. farinosa*. Leaves are small, deeply cut, and borne singly on stalks 3-4 in. long; flowers should be about 1 inch across and may be purple or even crimson; easy in the sunny rock garden and well worth trying.

—*grevilleanum*. **GERN-1.** Pkt. 25c  
A creeping plant with kidney-shaped leaves, hairy and deeply cut; flowers as much as 2 inches across, pale rose, sometimes with large purple spots.

—*nopaleense*. **GERN-2.** Pkt. 25c  
A straggling plant found on banks and bearing small pink flowers.

—*sanguineum*. **GERN-3.** Pkt. 15c  
Rounded plant 8 inches tall, 5-7 lobed leaves and reddish purple flowers.

**GERBERA (GER-be-ra)**

Tender perennial needing winter protection; the flowers are very popular for cutting and are extensively grown by florists. Start seeds in a warm place such as a sunny window, sowing seeds singly with points up just above the soil; in setting plants out keep crown just above the surface of the soil. Sunny location, well drained soil best; also makes fine pot plants for winter; 1 1/2 ft.

—*jamasenii* Hybrids. **GERB-1.** Pkt. 25c  
About 25 seeds in packet.

**GEUM (GEE-um)**

Easy to grow perennials, erect and generally dwarf, excellent for cutting and adapted for rock gardens, borders or beds. Bloom freely from May to Oct. Plants thrive best in light rich well drained soil in open sunny locations. Sow seeds in the open ground early in spring, 18-in. tall.

—*chiloense*. **Fire Ball.** **GEUM-1.** Pkt. 15c

—*Gold Ball*. **GEUM-2.** Pkt. 15c

—*Mrs. Bradshaw*. **GEUM-3.** Pkt. 15c

Large, rich double scarlet flowers, pretty.

—*Lady Stratheden*. **GEUM-4.** Pkt. 15c

Double golden yellow flowers, New.

—*coccineum*. **GEUM-5.** Pkt. 15c

Similar foliage, flowers bright red, 1-in. across.

—*Lady Stratheden*. **GEUM-6.** Pkt. 25c

Rich golden yellow flowers, double, HP, 2 ft.

—*elatum*. **GEUM-8.** Pkt. 40c

A rock garden or border species from the Himalayas with enormous golden, or rarely white, flowers on stems of 6 inches to 2 ft. A woodland plant and best in light shade, HP.

—*montanum*. **GEUM-6.** Pkt. 15c

Golden yellow flowers, 1 1/2-in. across, plants 1-ft. tall.

—*utbanum*. **GEUM-9.** Pkt. 75c

A rare species from India.

—*Mixed*. **GEUM-7X.** Pkt. 15c; 2 for 25c

Annual, azalea-like flowers in pink suffused with salmon.

—*Orange Glory*. **GODT-12.** Pkt. 25c

A fiery orange-cerise color, HA, 1 ft.

—*Rosemund*. **GODT-13.** Pkt. 25c

Dwarf compact variety with large glossy bright pink flowers, HA, 1 ft.

—*White Swan*. **GODT-14.** Pkt. 25c

Masses of very large pure white flowers, HA, 1 ft.

—*Dwarf Varieties Mixed*. **GODT-11.** Pkt. 25c

Including the best named varieties.

—*Prize Mixture*. **GODT-8.** Pkt. 15c; 1/4 oz. 80c

An extra special mixture.

**GILIA (JIL-i-ah)**

Annual, biennial and perennial plants mostly from W. N. Amer. of Polemonium Family. Easily grown in ordinary garden soil, sowing seed where they are to grow.

—*achilleaefolia*. **GIL-2.** Pkt. 10c

Bushy hardy annual to 2-ft., finely divided leaves and dense clusters of blue or purple flowers.

—*capitata*. **GIL-3.** Pkt. 10c

(Queen Ann's Thimble). Summer blooming, hardy annual to 2-ft. with dense roundish heads of light blue flowers, blooms continuously.

—*micrantha*. **GIL-5.** Pkt. 15c; 1/4 oz. 35c

(Fairy Stars). Pastel shades of tiny single star-like flowers or neat 6-in. plants, hardy annual, excellent for rock gardens, ground covering or cutting for miniature bouquets. Salmon, pink, copper, yellow and cream. Star-like flowers on neat 6 inch plants, hardy perennial.

—*rubra*. **GIL-4.** Pkt. 15c

This is sometimes listed as *G. coronopifolia*.

(Tree or Standing Cypress—*Ipomopsis* *Eleagni*). Finely dissected leaves and a narrow panicle of scarlet flowers with orange or yellow markings, half hardy biennial best grown as annual, 6-ft.

—*tricolor*. **GIL-6T.** Pkt. 25c

White and violet flowers with yellow throat; a neat annual, HA, 9 inches.

—*tricolor*, Choice Mixed. **GIL-6.** Pkt. 10c; 1/4 oz. 25c

Hardy annual with lilac flowers spotted yellow and purple in center; fine bloomer, 1-ft.

**GLADIOLUS (glad-i-OH-lus)**

A genus of tender cormous plants native of So. Africa and too common in the U.S. for an extended description. Growing them from seed is of special interest and much pleasure as well. The seed should be sown in rows in flats and placed in a cold frame until they have germinated and made some root growth; or better still, sow the seed in rows in a protected bed, where they can grow till fall, undisturbed. The corms must be dug before freezing weather and stored indoors over the winter.

—*Wonder Hybrids*. **GLAD-1.** Pkt. 50c

This is an English grown strain, which will produce flowers the first season from seed.

**GLAUCIUM (GLAU-si-um)**

Members of the Poppy Family usually grown as annuals altho they are biennial and perennials; sunny situations where their large yellow, orange or red flowers with their bluish dissected leaves give a brilliant effect in the garden throughout the season.

—*Mixed*. **GLAU-1.** Pkt. 10c

(Horned Poppy). Hardy perennial, flowers scarlet and yellow, makes fine showing in the border, 2-ft.

—*triangularis*. **GLED-1.** Pkt. 35c

Honey or Sweet Locust. This species is also used as stock for grafting choice specimens on.

**GLOBULARIA**

(glob-eu-LAY-ri-ah)

Little shrubby plants from the mountains of S. Europe and Asia, having blue and white flowers in rounded heads and grown in the rock garden; give a well drained soil in a moist and partly shaded location. Easily grown from seed.

—*tricocarpa*. **GLOB-1.** Pkt. 25c

Globe Daisy. A neat little plant with small toothed leaves and small heads of pale blue fluffy flowers on leafy stems, HA, 8 inches.

**GODETIA (goh-DEE-shi-ah)**

Attractive hardy annuals, bushy plants with masses of large pink, red and white showy flowers; for beds in sun or semi-shade, bouquets (all buds open in water). Thrive best in cool moist half shady situations, sow seeds broadcast late in the fall and allow to remain undisturbed when they will germinate quickly in the spring as the soil warms and then bloom profusely in late spring; they do not tolerate very hot sun.

—*Grandiflora*. **GERB-1.** Pkt. 25c

A creeping plant with kidney-shaped leaves, hairy and deeply cut; flowers as much as 2 inches across, pale rose, sometimes with large purple spots.

—*nopaleense*. **GERN-2.** Pkt. 25c

A straggling plant found on banks and bearing small pink flowers.

—*sanguineum*. **GERN-3.** Pkt. 15c

Rounded plant 8 inches tall, 5-7 lobed leaves and reddish purple flowers.

**GERBERA (GER-be-ra)**

Tender perennial needing winter protection; the flowers are very popular for cutting and are extensively grown by florists. Start seeds in a warm place such as a sunny window, sowing seeds singly with points up just above the soil; in setting plants out keep crown just above the surface of the soil. Sunny location, well drained soil best; also makes fine pot plants for winter; 1 1/2 ft.

—*grevilleanum*. **GERN-1.** Pkt. 25c

A creeping plant with kidney-shaped leaves, hairy and deeply cut; flowers as much as 2 inches across, pale rose, sometimes with large purple spots.

—*jamaseenii* Hybrids. **GERB-1.** Pkt. 25c

About 25 seeds in packet.

**PIONEER SEED COMPANY, DIMONDALE, MICHIGAN**

for use in cut flowers and a very popular flower, 3-ft.

—*Snowstorm*. **GYP-12.** Pkt. 20c; 1/2 oz. 70c

Hardy perennial with flowers like tiny balls, covering the plant; flowers smaller than *G. elegans*, blooming all summer and fall and making the best of white cut flowers, making any bouquet much prettier with its misty effect; 3-ft.

—*Single White*. **GYP-13.** Pkt. 10c; oz. 60c

*mantegazzianum*. HERA-1. Pkt. 20c  
A stately plant for background, 8-ft. Fine  
for specimen plants.

### HESPERIS (HES-per-is)

Hardy biennials and perennials of erect  
branching habit that bear white, rose or  
mauve-purple flowers in pyramidal spikes;  
excellent cut flowers, June-Aug. They are  
1-3-ft. tall and their colorful display is  
enhanced by their sweet fragrance, give  
a sunny position in the border. Sow  
seeds outdoors in April or indoors in  
March, flowering the following seasons.

*Matronalis*. Violet. HESP-1. Pkt. 10c;

1/2 oz. 25c

(Sweet Rocket). Best grown as a biennial.

*White*. HESP-2. Pkt. 10c; 1/2 oz. 25c

### HETEROPAPPUS

#### (het-e-ro-PAP-pus)

Hardy border plants with azure-blue  
aster-like flowers in summer; somewhat  
similar to *Boltonia*.

*Blaugrilli*. AST-66. Pkt. 20c

### HEUCHERA (HEU-ker-ah)

Herbaceous perennials usually dwarf,  
compact habit of growth; June-Sept., and  
valuable in low border or rockery; good  
loamy soil, sunny position, will produce  
mats of deep green, sometimes tinged with  
white or red from which rise slender stalks  
bearing airy clusters of bell-shaped  
flowers, excellent for cutting; plant seed  
early in the spring. Seed germinates best  
warm and in light.

*glabella*. HEU-1. Pkt. 20c

Western native species.

*maxima hybrida*. HEU-2. Pkt. 40c

Large flowers on stiff stems in white,  
deep rose and bright red.

*SANGUINEA*: (Coral Bells). Bell-shaped  
flowers, 1/2-in. long with prominent coral  
colored calyx, colors pink, rose and red,  
stems 12-18-in., July-Aug. HP, 1 1/2 ft.

*Spitfire*. HEU-3. Pkt. 20c

Large rich scarlet flowers, very pretty.

*splendens*. HEU-4. Pkt. 20c

Vermilion colored flowers.

*hybrids*. HEU-5. Pkt. 20c

Many different colored hybrids.

### HIBISCUS (hy-BIS-kus)

Mallows flower in the late summer when  
other flowers are scarce, they like sunny  
positions, are quite hardy. The herbaceous  
group will bloom first season if started  
indoors very easily; the genus is very large  
and variable. The annual kinds are very  
easily grown from seeds.

*Avalon Hybrids*. HIBS-1. Pkt. 20c

Millaris crossed on *Coccin* producing  
wonderful color variations, finest of all  
and different in every way; very hardy,  
color range from palest blush thru many  
tones of pink, then rose to reds, colors  
never before seen in Hibiscus; eyes are  
not common but are oddly rotated in  
deeper colors, long blooming season.

*homabo*. HIBS-8. Pkt. 50c

*militaris*. HIBS-2. Pkt. 15c

Very hardy and rugged, making a good  
herbaceous hedge, sown in position;  
flowers bell-shaped of soft pink with rose  
striations, easily grown, 4-ft.

*moschatus*. Hybrids. HIBS-3. Pkt. 15c

(Giant Mallow Marvels). Very satisfac-  
tory perennials easily grown from seed  
and make a dandy addition to the hardy  
border. These hybrids have a fine color  
range from palest blush thru pure pink  
to rose with snowy white and pure cream  
son; center eyes common, 4-ft.

*trionum*. HIBS-4. Pkt. 30c

Quick growing, long blooming annual  
with multitudes of big ivy-toned cup-  
blossoms centered with golden tassels, the  
petals patched violet at the bases; a very  
pleasing addition to the flower border;  
HHA, 2 1/2 ft.

*manihot*. HIBS-5. Pkt. 15c

(Sunset or Golden Bowl). Spectacular  
tall annual with big lemon-yellow flowers  
blotted purple-maroon; very showy, es-  
pecially valued for showy plants in the  
background, 7-ft.

*Hibiscus, Mixed*. HIBS-6X. Pkt. 15c

HIERACIUM (hy-er-AY-shi-um)

Perennial composite plants with red,  
orange or yellow flowers, some of which  
are called Hawkweed. They are easily  
grown from seed; those listed are all  
attractive and useful border or rock gar-  
den plants. The leaves are in rosettes  
with the flowers in heads on erect stalks.

*villosum*. HIER-1. Pkt. 25c

A showy rock plant with yellow flowers  
and silvery leaves, HP, 1 ft.

HOLLYHOCKS (*Althaea rosea*)

These are all perennial, except Indian  
Spring, and do their best in deep, rich,  
well drained soil and like a warm sunny  
situation sheltered from wind. Group  
plantings, not too large, make attractive  
color in the background plantings. Plant  
seed early, either indoors or out. We list  
only the very best strains.

ANNUAL VARIETIES:

*semi-double, Mixed*. HOLY-1. Pkt. 10c;

1/2 oz. 45c

*Single, Finest Mixed*. HOLY-2.

Pkt. 10c; 1/2 oz. 45c

*Indian Spring*. HOLY-3. Pkt. 10c;

1/2 oz. 45c

Free flowering annual, semi-double rose  
and pink shades, 5-ft. tall.

PERENNIAL VARIETIES:

*Allegheny, Mixed*. HOLY-4. Pkt. 10c;

1/2 oz. 45c

Semi-double flowers, 5-in. across.

*Begonia-Flowered*. HOLY-15. Pkt. 15c

Large flowered, wide petals with pretty  
raised centers, very showy.

*Imperator*. HOLY-5. Pkt. 15c

Beautiful fringed flowers in pink to  
crimson salmon, 5-ft.

*Triumph, Double Mixed*. HOLY-6.

Pkt. 15c

Flowers are waved and fringed with a  
distinct branching habit; unlike the tall  
Hollyhocks, these will make good showy  
displays in small groups as bush speci-  
mens, give 2-ft. space between plants, 5-10  
in a group, 3-4 ft.

*Chater's Double Hollyhocks*:

These grow about 6-ft. high and make  
very pretty displays in the border when  
planted in one variety for a bright show-  
ing. We offer one of the very best strains  
of these beautiful flowers.

*Colorado Sunset*. HOLY-7. Pkt. 15c

A buff apricot attractive

in groups.

*Red Emperor*. HOLY-8. Pkt. 15c

*Scarlet*. HOLY-9. Pkt. 15c

*White*. HOLY-10. Pkt. 15c

*Yellow*. HOLY-11. Pkt. 15c

*Empress Strain*. HOLY-12. Pkt. 15c;

1/2 oz. \$1.00

A Holland grown strain in mixed vari-  
eties of Chater's doubles.

*Chater Blend*. HOLY-13X. Pkt. 15c;

1/2 oz. \$1.00

A hand made blend of above varieties  
in a well balanced color combination.

*Hollyhock Mixture*. HOLY-14X.

Pkt. 10c; oz. 80c

Contains double, semi-double and single  
varieties, including every type.

### HORDEUM (HOR-de-um)

Ornamental grasses, both annual and  
perennial.

*jubatum*. HORD-1. Pkt. 10c

(Squirrel-tail, Grass). Hardy annual,  
heads 4-in. long, nodding, with beards  
3-in. long, use as an ornamental grass  
and if cut just after the spikes emerge  
from the sheath and dried, they make ex-  
cellent winter bouquets, 2-2 1/2 ft.

### HOSTA (HOH-stah)

Plantain-lily. Funkia, Day-lily. Peren-  
nials with thick durable roots belonging  
to the Lily Family, native of China and  
Japan. They are widely planted for their  
foliage effect, the large glossy leaves  
making excellent accents at corners of  
beds, etc. They require a rich soil, do  
well in sun and some in shade. The  
flowers are in white or blue, funnel-  
shaped in loose clusters or racemes. They  
make fine hedges along a drive.

*sieboldiana*. HOST-1. Pkt. 25c

Cream flowers tinged with blue and  
glaucous foliage, HP, 1 1/2 ft.

### HUMULUS (HEU-meu-lus)

Twining vines (Mulberry Family) grown  
for ornament.

*japonicus*. HOP-1. Pkt. 10c

Good and fast growing annual vine,  
10-20 ft. from May planted seed.

*variegatus*. HOP-2. Pkt. 15c

The green leaves are streaked and  
blotched white and are very decorative,  
seedling show considerable and interesting  
variations.

### HUNNEMANNIA

#### (hun-e-MAN-i-ah)

(Mexican Tulip Poppy). Hardy perennial,  
doing best in sun, well drained sandy soil,  
survives drought. Flowers yellow, tulip-  
shaped, 3-in. across and fine for cutting,  
if cut just before fully open, they will last  
a week. Treat as an annual sowing seeds  
early to have flowers the first season, 20-  
inches.

*fumariifolia*. HUNN-1. Pkt. 10c

*Sunlite*.

HUNN-2. Pkt. 15c  
Improved type, semi-double compact yellow  
flowers; the extra row of short petals on  
the outside instead of the inside, very fine.

### HYDRANGEA (hy-DRAN-je-ah)

#### (in-kahr-VIL-ee-ah)

Deciduous shrubs belonging to the Saxi-  
frage Family and valued as ornamental  
plants they have large clusters of showy  
white, pink or blue flowers. They thrive  
best in a rich moist soil and flower freely  
in open situations. Some are real hardy  
while others can be grown only in the  
South during the winter.

*robusta*. HYDR-1. Pkt. 50c

HYOSCYAMUS

#### (hy-oh-SY-ah-mus)

Funnel-shaped flowers in spikes called  
Henbane, found on poor soil. Some species  
are grown for medicinal uses.

*niger*. HYOS-1. Pkt. 10c

HYPERICUM (hy-PER-i-kum)

St. John's Wort. Perennial plants and  
shrubs, very decorative, usually with  
bright yellow flowers with many showy  
stamens. They grow easily in loamy or  
sandy soil, best in a semi-shady position;  
useful in the rock garden or the border.  
Most are not real hardy in the N. and if  
sheltered places, with winter protection,  
they can be grown even in Michigan. They  
are pretty plants.

*Hookerianum*. HYPR-1. Pkt. 25c

*patulum*.

3 foot bush with large solitary or  
clustered flowers.

### IBERIS (y-BEE-ris)

CANDYTUFT. Small to medium sized an-  
nual and perennial herbaceous plants, na-  
tive of S. Europe, hardy and easy to grow.  
There are two distinct kinds, the half  
hardy annuals and the perennials. The  
annuals are used in the rock garden and  
for edging or in pots, and will bloom the  
entire season if kept from seed. The  
perennials bloom only in the spring. Both  
are low growing, do well in ordinary gar-  
den soil and require little care. Sow seeds  
of the annuals outdoors in mid-May as  
they do not take to transplanting. The  
larger the planting the better the effect.  
Germination is fast and growth rapid. The  
perennials can be sown in the fall.

*gibraltarica*. IBER-1. Pkt. 10c

(Gibraltar Candytuft). Evergreen peren-  
nial with light purple or lilac flowers in  
faint clusters.

*jucunda*. IBER-3. Pkt. 35c

Dwarf, 4-in. tall, perennial, pink flowers.  
Excellent rock garden plant.

*UMBELLATA*: (Globe Candytuft).

Annual, branching freely, to 15-in. tall. This  
is the popular garden Candytuft, with  
many varieties.

*Giant-Hyacinth-Flowered, White*.

IBER-5. Pkt. 10c; oz. 50c

Large spikes of the purest white, erect  
habit.

*Hyacinth-Flowered White*. IBER-7.

Pkt. 15c; oz. 90c

Reselected Florist Strain. This is a  
superior strain, 15-in. tall with enormous  
trusses of uniform blooms.</

vinegar and lavender water; not being hard; it is not grown much in northern gardens and must be protected over winter by mulching with coarse material. Set plants 2-ft. apart in their permanent location, in a dry, light limey soil and full sun; in rich or moist soils they do not do so well and lack the fragrance produced in an ideal location. Formally listed as *L. officinalis* and *L. vera*; annual, 2-ft.

—spica. LAV-3. Pkt. 10c; 1/2 oz. 70c

—Munstead Strain. LAV-1. Pkt. 15c; 1/4 oz. \$1.00

Dwarf, deep lavender, 1-ft., a choice strain.

—Vilmorin Hybrids. LAV-2. Pkt. 10c; 1/4 oz. 60c

French hybrids, beautiful flowers.

### LAVATERA (lav-ah-TEE-rah)

Fast growing, herbaceous annuals and shrubby perennials; the annuals are colorful with mallow-like flowers, easily grown. The perennials are specially suited to the West Coast section and all will bloom the first year with a little extra attention; do not transplant.

—arborea. LAVT-1. Pkt. 10c

A shrubby biennial with dark veined magenta flowers, 6-10 ft. perennial grown as an annual.

—trimestris var. splendens. Mixed.

LAVT-2. Pkt. 10c

Hardy annual, white and rose-pink, mallow-like flowers on large plant for show or cutting, 3-ft.

—Loveliness. LAVT-3. Pkt. 15c

A new and very highly recommended German variety, large rose flowers.

—thuringiaca. LAVT-4. Pkt. 25c

Light blue flowers, HP, 4 ft. treated as annuals in the N. and some-

### LEONTOPODIUM

#### (le-on-tuh-POH-di-um)

The much prized Swiss Edelwiss (AY-del-vys). A tufted perennial with white wooly foliage and inconspicuous flowers, surrounded by floral leaves in star-like clusters; a most sought after subject for the alpine rock garden and sometimes grown in pots; requires rough sandy loam, plenty of room in rock pockets for its wide spreading roots and full sunlight; also good in border, best grown from very early planted seeds.

—alpinum. LEON-1. Pkt. 25c

#### LEPTOSYNE (lep-TOS-i-nee)

Sometimes described under *Coeopsis*; have somewhat succulent, finely divided leaves and long stemmed yellow flowers; treated as annuals in the N. and sometimes grown under glass in the winter; easily and quickly grown from seeds, doing well in a light soil and a sunny location.

—maritima, gr. fl. LEPT-1. Pkt. 15c

(See Dahlia). Leafy stem and flowers 3-in. across, yellow, 3-ft. tall, hardy annual.

—stellatimanni. LEPT-2. Pkt. 15c

Leafy stems, smaller than *L. maritima*, golden yellow flowers, hardy annual, 1-ft.

### LEUCADENDRON

#### (leu-kah-DEN-dron)

So. African trees or shrubs (Proteo Family). Not hardy in the N. Grown outdoors in Southern Cal. and Fla. or under glass in N.

—argenteum. LEUC-1. Pkt. 25c

(Silver Tree). One of the most noted trees of the Cape of Good Hope region where it reaches 30 ft.; interesting and showy plant with its narrow silvery white leaves closely set upon the stems; the dried leaves are used for decorative purposes. Packet contains about 20 seeds.

#### LEWISIA (leu-IS-i-ah)

A genus of low growing perennials of the Portulaca Family with narrow fleshy leaves, often in rosettes, and pretty waxy or satiny cactus-like flowers, borne singly or in clusters. They are natives of the western states, perfectly hardy and should be given an open, well drained position in the rock garden and a mulch of leaves in the winter. Perfect drainage must be given them because of the thick starchy root which requires a period of rest.

—redvira. LEWS-1. Pkt. 35c

This is spoken of as "one of the finest four rock garden plants in the world" and was Lewis and Clark's best find. State flower of Mont. Has a dense rosette of narrow leaves above which rise beautiful silky short stemmed blossoms 1 1/2-in. across, vary in color from white to deep rose.

#### LIATRIS (ly-AY-tris)

Perennial plants being borne close against long, wand-like spikes, very attractive all summer and into autumn, effective when massed in the border. Easily raised from seed and easily transplanted.

—spicata. LIAT-1. Pkt. 20c

Long spikes of fluffy purplish-rose flowers, hardy perennial, 5-ft.

#### LIGustrum (li-GUS-trum)

Privet. Deciduous or evergreen shrubs native of Europe, Asia and Australia. Useful as hedges and very ornamental. Some are not hardy in the N., especially the evergreen species. Easily grown from seed.

—confusum. LIGS-1. Pkt. 25c

#### LILium

(Lily). Growing Lilies from seed has become a very popular hobby with flower growers; very fine bulbs can be easily grown from seed, sowing them in flats of good garden soil, sand and leaf mold, equal parts and covering 1/4-in. deep; seed may be sown anytime, the growth is mostly root growth the first year, transplant out the second and by the third year good sized bulbs may be had, with many species even blooming within a year. Some sorts germinate readily, others longer and some of the hybrids very variable. We will mark offerings with planting symbols, as follows: (A) Sow March or April, outdoors or month earlier indoors, germinate in 3-6 weeks, transplant following spring to nursery row. Also can be grown as in next culture. (B) Best to start in frame or greenhouse in early spring or outdoors in the S. Germination 3-6 weeks, carry seedlings over in frame or cool house the first winter, transplanting them out in the spring. (C) April-June outdoors in well made seed bed, 2-5 months to germinate with top growth not appearing till following spring, transplant second year. (D) Plant outdoors in late fall, Nov.-Dec. in carefully prepared seed bed, germination and top growth the 2nd spring and transplant 3rd or 4th spring according to

growth. (E) Usually hybrids of very variable reaction. The easy ones follow (A) or (B) and the hard ones are best under (C). Note proper culture under each variety description.

NOTE: We can supply Lily Bulbs on almost every variety, either in the spring or the fall. Ask for the special lists.

Due to the continued unsettled conditions in Europe, we may not be able to offer as large a list in seeds as we should, but each week brings in a new variety

so that we hope to be able to extend the list considerably before the season is over.

—giganteum. LILY-1. Pkt. 20c

This seed comes to us from India, large saffron green cordate leaves, numerous white fragrant flowers in tall racemes. Culture D.

—maritimum. LILY-4. Pkt. 25c

(Turks Cap). Purple with dark brown spots, 3 1/2-ft. Culture C.

—macrophyllum. LILY-5. Pkt. 25c

(Notholirion). Source of seed India.

—nepalense. LILY-6. Pkt. 25c

Magnificent species of striking beauty, bell-shaped flowers on slender erect stems, greenish yellow outside and soft yellow within, flushed towards the base with purplish black, very sweet scented, rosary Culture B.

—philippinense, formosanum. LILY-7.

Pkt. 25c (Philippine Lily). White tinted green at base, 1-3 ft. Culture B.

—thompsonianum. LILY-10. Pkt. 35c

(Notholirion). Many fragrant rose-pink flowers with deep purple anthers. This and Notholirion macrophyllum are reasonably hardy and quite easily grown, but produce their leaves in autumn and require careful protection to prevent damage by freezing; seed germinate irregularly, a few the first spring, others not for a year, HP, 2 ft.

—watshianum. LILY-11. Pkt. 25c

White flowers, large, sweet scented. Culture B.

—Lily Blend. LILY-12X. Pkt. 25c

Containing 20 or more hardy species. Better try culture B. and C.

NOTE: We can quote on quantities of Lily seed but due to the uncertainty of delivery we would rather you inquire first—just drop us a postal.

—LYMINANTHES (lim-NAN-theez)

Meadow Foam. Formerly in the genus Floreana.

—douglasi. LIMN-1. Pkt. 20c

Hardy annual plant with finely cut yellowish-green leaves and fragrant white flowers, shaded at the base into pink and yellow. This attractive little plant grows in masses in low damp places and is a lovely flower in the wild garden; easily grown from seed.

—LIMONIUM (li-MOH-ni-um)

Statice, Sea Lavender, Sea Pinks. Common name for Statice and a highly prized flower in the greenhouse, border, rock garden and for dried flowers. As everlasting they are especially long lasting and of real value.

—latifolium. LIMO-1. Pkt. 15c; 1/2 oz. 95c

Perennial with immense lavender-purple heads, best in a dry location, 2-ft. Especially valued for floral designs.

—SINUATUM: Biennial or perennial, grow as a hardy annual; leaves form a low rosette at base of the stiff angular branching flower stalk. These are very popular for dried flowers.

—bonduellii. LIMO-3. Pkt. 10c; oz. 65c

Golden yellow flowers, 2-ft.

—caspium. LIMO-10. Pkt. 15c

A dwarf species suitable for the sunny rock garden, with very small leaves and branching stems bearing many pale-lilac flowers. HP, 6-in.

—Kamp's Tall Improved. LIMO-4.

Pkt. 10c; oz. 50c

Improve blue, especially valued on the market.

—marktgonigen. LIMO-5. Pkt. 15c

A new Swiss strain in a perfect blue.

—Market Grower's Blue. LIMO-6.

Pkt. 10c; oz. 35c; 1/4 lb. 85c

A standard market strain of value.

—True Blue. LIMO-7. Pkt. 10c; oz. 50c

A fine California blue market strain.

—Pastel Shades. LIMO-9. Pkt. 15c

—Choice Mixed. LIMO-8X. Pkt. 10c;

oz. 45c; 1/4 lb. 85c

LINARIA (ly-NAY-ri-ah)

Rather low growing plants, annual, biennial and perennial (Figwort Family), trailing and erect. The flowers are like miniature Snapdragons. The annuals should be started indoors. They are all easily grown from seed. Kenilworth 1914 formerly classified here is *Cymbalaria muralis* (which see).

—maroccana, Early Bouquet. LINA-1.

Pkt. 15c; 1/4 oz. 80c

Grows 8-in. tall and covered with delicate flowers in shades of pink, rose, cream, yellow, lavender and white, blooming freely all summer and into the fall.

—Fairy Bride. LINA-2. Pkt. 15c; 1/4 oz. 50c

A French strain similar to Fairy Bouquet.

—LINDHEIMERA

—Texana. LIND-1. Pkt. 20c

Star Cup. An easy attractive everblooming annual with flowers that have five wide golden petals arranged to form both a star and a cup, cuts well, 2 ft.

—LILUM

(Lily). Growing Lilies from seed has

become a very popular hobby with flower

growers; very fine bulbs can be easily

grown from seed, sowing them in flats of

good garden soil, sand and leaf mold,

equal parts and covering 1/4-in. deep;

seed may be sown anytime, the growth

is mostly root growth the first year,

transplant out the second and by the third

year good sized bulbs may be had, with

many species even blooming within a year.

Some sorts germinate readily, others longer

and some of the hybrids very variable.

We will mark offerings with planting symbols, as follows: (A) Sow March or April, outdoors

or month earlier indoors, germinate in 3-6 weeks, transplant following spring to nursery row. Also can be grown as in

next culture. (B) Best to start in frame or

greenhouse in early spring or outdoors in the S. Germination 3-6 weeks, carry

seedlings over in frame or cool house the

first winter, transplanting them out in the

spring. (C) April-June outdoors in well

made seed bed, 2-5 months to germinate

with top growth not appearing till follow-

ing spring, transplant second year. (D)

Plant outdoors in late fall, Nov.-Dec. in

carefully prepared seed bed, germination

and top growth the 2nd spring and trans-

plant 3rd or 4th spring according to

growth.

—flavum. LINM-1. Pkt. 20c

This is a pretty rock garden plant, peren-

nial, golden yellow flowers, 1-ft. tall, half

flowers than the African; they are especially good for bedding and the smaller varieties, excellent for edging. Some make fine pot plants.

#### NEW HARMONY TYPES:

(*Tagetes Patula*).

—Gold Crest. MARY-22. Pkt. 10c;  $\frac{1}{2}$  oz. 50c

Golden yellow flowers, 2-in. crested centers of quilled petals surrounded by several guard petals, very early and free flowering, 8-in. tall.

—Golden Harmony. MARY-23. Pkt. 10c;  $\frac{1}{2}$  oz. 50c

Luminous golden yellow, both center and guards, compact 11-in. plants, 100% double.

—Golden Supreme. MARY-24. Pkt. 10c;  $\frac{1}{2}$  oz. 50c

Larger flowers than Golden Harmony and taller, 11/2-ft.

—Harmony. MARY-25. Pkt. 10c;  $\frac{1}{2}$  oz. 30c

Deep orange, maroon collar, broad petals and very even growth, early, 1-ft.

—Melody. MARY-26. Pkt. 10c;  $\frac{1}{2}$  oz. 50c

Clear, self golden yellow throughout, early, free flowering, 11/4-in. flowers, 1-ft.

—Orbit. MARY-27. Pkt. 10c;  $\frac{1}{2}$  oz. 35c

Golden yellow center, reddish brown guard petals, compact, 100% double, 1-ft.

—Spotlight. MARY-28. Pkt. 10c;  $\frac{1}{2}$  oz. 35c

Yellow center, mahogany border, 13/4-in. across, very early, 1-ft.

—Winter Harmony. MARY-32. Pkt. 10c; 1 oz. \$1.00

Tall, winter flowering greenhouse variety, golden orange crested centers with reddish brown guard petals, 21/2-in. across, very even growth, long stems, 100% double.

A striking brilliant blend of African and

—Dwarf Harmony. MARY-33. Pkt. 10c;  $\frac{1}{2}$  oz. 40c

Uniform 11-in. plants, coming in fanciful two tone combinations from lemon yellow to dark red.

FRENCH—Tall Double (30-in.)

—Australian Giant. MARY-36. Pkt. 10c

Tall double, or grandon tree. Brownish yellow flowers, 21/2-ft.

—Josephine (Single Brown) MARY-52. Pkt. 15c

An especially good florist variety for cut flowers, grown outdoors, 3 ft. Color brown.

—Lieb's Tall Winter Flowering. MARY-35. Pkt. 10c;  $\frac{1}{2}$  oz. 50c

Deep brown, single and semi-double flowers for winter growing under glass.

—Tall Harmony. MARY-34. Pkt. 10c;  $\frac{1}{2}$  oz. 35c

Double Harmony hybrids, excellent for cutting or display.

#### FRENCH DWARF DOUBLE:

—Robert Beist. MARY-48. Pkt. 15c

Rich maroon, 12 inches high.

—Royal Scot. All Double. MARY-37. Pkt. 10c;  $\frac{1}{2}$  oz. 50c

Dwarf, compact, 100% double, rich mahogany and gold in uniform stripes; extra select strain, 1-ft.

—Sunbeam. MARY-31. Pkt. 10c;  $\frac{1}{2}$  oz. 35c

Pure golden yellow, pretty, 15-in. tall.

—Double Monarch. Mixed. MARY-38. Pkt. 10c;  $\frac{1}{2}$  oz. 50c

Compact habit with large flowers, fascinating new shades; a rich color blend.

FRENCH—Dwarf Single (10-in.)

—Ferdinand. MARY-49. Pkt. 15c

Single flowers, golden yellow flanked mahogany red, showy, early, blooming and very free flowering, 20-24 inches.

—Fire Cross. MARY-41. Pkt. 10c;  $\frac{1}{2}$  oz. 50c

Single, dwarf, deep orange-yellow blotted maroon, 10-in.

—Flash. MARY-40. Pkt. 10c;  $\frac{1}{2}$  oz. 40c

New red and gold bicolor, a new single type. Large single flowers 13/4-in. across in glowing shades of tawny gold to mahogany, plants mound-shaped, ideal for borders and pots, also cutting, 15-in.

—Legion of Honor. MARY-42. Pkt. 10c;  $\frac{1}{2}$  oz. 40c

Single dwarf yellow blotted brown.

FRENCH DOUBLE MINIATURE

—Butterball. MARY-21. Pkt. 10c;  $\frac{1}{2}$  oz. 50c

Soft butter yellow with maroon on center petals, very free flowering, 8-in. tall.

—Spry. MARY-29. Pkt. 10c;  $\frac{1}{2}$  oz. 50c

Yellow crested centers with red guard petals, 11/2-in. across, blooms in less than 9 weeks, 9-inches.

—Sunkist. MARY-30. Pkt. 10c;  $\frac{1}{2}$  oz. 50c

Bright golden-orange, dandy companion Butterball, flowering very early 11/2-in. across, 8-in.

—Yellow Pigmy. MARY-47. Pkt. 15c

A very dwarf bright yellow, 10-in.

—Gem Mixture. MARY-50. Pkt. 15;  $\frac{1}{2}$  oz. 70c

A new Dwarf Marigold mixture to call your special attention to. Like the miniature varieties, such as Spry, from which this blend is made, the compact plants retain their neat form throughout the summer heat and continue to bloom from the earliest until frost.

—Signata pumila. MARY-44. Pkt. 10c;  $\frac{1}{2}$  oz. 70c

Tagetes. Bright yellow, tiny single flowers, in great profusion on compact plants; fine for edging or filling up bare spots in rockery, 8-in.

—Little Giants. MARY-45. Pkt. 10c;  $\frac{1}{2}$  oz. 80c

Deep orange in color, only 6-in. tall, beautiful for edging or for bare spots in rockery, very free flowering, tiny single flowers.

—Gnome. MARY-43. Pkt. 10c;  $\frac{1}{2}$  oz. 50c

Tagetes signata pumila. A very dwarf compact single form, pretty orange color; beautiful edger and for rock garden, 6-in.

MATHIOLA (mat-THY-oh-lah)

Stocks. Annuals and perennials (Crucifer Family) of which the garden species consists of 2 species and one belonging to Malcomia. The genus Cheiranthus is related and to which the Wallflower belongs.

—azedraach. MELA-1. Pkt. 35c

Chinderry or Umbrella-tree. Grown in the South where it stands a few degrees of frost; grows to 50 ft. with graceful pinnate foliage, fragrant lilac flowers borne in loose panicles, followed by yellow oval fruits that remain for a long time.

weeks later, or start them 6-8 weeks earlier indoors. Keep at a temperature around 65 degrees. For greenhouse flowering seed is sown about end of Oct.

—Giants of California. Mixed. STOK-1. Pkt. 20c;  $\frac{1}{4}$  oz. 90c

Superb branching type producing immense spikes of 2-in. florets and averaging better than 70% double; one mammoth spike per stalk can be produced when transplanted 4-6-in. apart in beds. Best strain available for commercial growers.

—Early Colonial Branching, Mixed. STOK-2. Pkt. 20c;  $\frac{1}{4}$  oz. \$1.00

Extremely base branching, this type does not produce a large center spike; 12-15 branches per plant, bearing double florets, are typical of this strain, 21/2-ft.

—Mammoth Beauty of Nice. Mixed. STOK-3. Pkt. 15c;  $\frac{1}{4}$  oz. 50c

Comes into flower just as early as the Dwarf Ten Week Stocks and forms a pyramid-shaped plant; this the most popular class for general garden use, 11/2-ft.

—Double Dwarf 10 Weeks. STOK-5. Pkt. 15c;  $\frac{1}{4}$  oz. 40c

This type is especially recommended for outdoor growing in the East and Middle West; blooming in 10 weeks from seed, 1-ft.

—Double Giant Excision. Balls No. 2. STOK-7. Pkt. 25c

Each plant produces one large flowering spike, white tinged with pink, greenhouse strain, 3-ft.

—Ball's No. 14. STOK-8. Pkt. 25c

Same as above with deep rose-pink flower.

—Gardenia. STOK-9. Pkt. 25c

Large single pure white flower.

—Mixed. STOK-11X. Pkt. 25c

The very best blend of single flowered varieties.

—bicornis. STOK-20. Pkt. 10c;  $\frac{1}{4}$  oz. 30c

Evening Stocks. A hardy annual, 15-in. high, sweetly fragrant after twilight hours or after shower; small lilac flowers, July-Sept. Sow seeds indoors or plant out early in May.

#### MELOTHRIA

—scabra. MELO-1. Pkt. 15c

A perennial climber best grown as an annual, start seeds indoors setting out in May.

—MELO-1. Pkt. 15c

These are tender plants, best grown in dry, gritty, well drained soil, care being given to water them from below; usually started indoors; low growing, fleshy, succulent plants, many of them having striking, glistening, ice-like points on the foliage; they are natives of hot, dry, barren parts of S. Africa. They are tender in the N. and when grown outdoors they must be wintered in a cool, well ventilated, greenhouse. In California and Florida, a number of them are grown in the open and do especially well. They make nice pot plants and should be given a light dry gritty soil with the best of drainage.

—criniflora. MESE-2. Pkt. 25c

Livingstone Daisy. New. Very rich flowering in beautiful bright and varied colors.

—crystallinum. MESE-3. Pkt. 15c

Now. Cryophytum crystallinum. Ice plant, an easily grown annual and used for ground cover in mild climates and in porch or window boxes in the N.

—tricolor. MESE-4. Pkt. 15c

Annual.

MICHELIA (my-KEE-li-ah)

(Bot. Reseda, re-SEE-da, odorata).

Asiatic shrubs and trees belonging to Magnolia Family. They are easily grown from seed; not hardy in the North but can be grown outdoors in the South.

—cathcartii. MICH-1. Pkt. 30c

—excelsa. MICH-2. Pkt. 30c

—lanuginosa. MICH-3. Pkt. 30c

#### MIGNONETTE

(Bot. Reseda, re-SEE-da, odorata).

These sweet scented plants are excellent for pots or boxes, beds and borders and the improved varieties make fine cut flowers; they are also excellent for bees, yielding a large amount of excellent honey; full sun or partial shade and best in moderately rich soil, sow seeds in open ground as they develop rapidly and resent moving; successive sowings will furnish material; it is best to grow them as annuals, starting seeds as early as the first of May, 6-1/2-in. tall.

—Allen's Defense. MIG-1. Pkt. 10c;  $\frac{1}{4}$  oz. 25c

Individual florets are of immense size, compact plants, very fragrant.

—Machet Giant Flowering. MIG-2. Pkt. 15c;  $\frac{1}{4}$  oz. 40c

This is a special straining pyramidal growth.

—Machet Golden Goliath. MIG-3. Pkt. 15c;  $\frac{1}{4}$  oz. 40c

Special strain. Golden yellow flowers, large and very fragrant.

—Machet, Red Goliath. MIG-4. Pkt. 15c;  $\frac{1}{4}$  oz. 40c

Special strain. Large red flowers.

—Machet New York Market. MIG-5. Pkt. 15c;  $\frac{1}{4}$  oz. 40c

Special strain.

—Machet Special Mixed. MIG-6. Pkt. 10c;  $\frac{1}{4}$  oz. 35c

Special strain. Golden yellow flowers, large and very fragrant.

—Machet Improved. MIG-7. Pkt. 10c;  $\frac{1}{4}$  oz. 35c

Dark foliage.

—Golden Rose. Emperor. NAST-8. Pkt. 10c;  $\frac{1}{4}$  oz. 40c;  $\frac{1}{4}$  lb. 90c

Dark foliage.

—Vermilion Glow. NAST-9. Pkt. 10c;  $\frac{1}{4}$  oz. 40c;  $\frac{1}{4}$  lb. 90c

Vivid scarlet, dark foliage.

—Golden Gleam. NAST-10. Pkt. 10c;  $\frac{1}{4}$  oz. 40c;  $\frac{1}{4}$  lb. 90c

flowers; flowers soft Poppy-like blooms on end of upright spikes. They require dry soil and full sunlight, very easily grown.

—*drummondii*. OENO-1. Pkt. 15c

Light yellow, biennial grown as an annual.

—*lamarckiana*. OENO-2. Pkt. 15c

Evening Scented Primrose. Yellow flowers 2" across, especially pretty in background plantings, 3 ft.

—*odorata*. OENO-3. Pkt. 15c

Yellow, sweet scented, biennial grown as an annual.

—*Mixed*. OENO-4. Pkt. 10c

### OPHIOPOGON (o-fe-o-PO-gon)

Turf-forming plants of the Lily Family, with racemes of small whitish flowers and grass-like foliage, often striped or spotted with white or yellow; useful for turf and border edgings, requiring no clipping; some rather tender in the N.

—*intermedium*. OPHI-1. Pkt. 50c

—*clarkei*. OPHI-2. Pkt. 50c

### ORNITHOGALUM

#### (aur-ni-THOG-ah-lum)

Bulbous plants of the Lily Family with lily-like flowers in clusters at top of leafless stems. They are very pretty.

—*sandersiae*. ORNI-1. Pkt. 25c

A splendid addition to the strains of easily grown bulbs for the summer garden; handle like Gladiolus, seeds germinate quickly and strongly, making excellent cut flowers which rise from pretty rosettes of glossy, channeled leaves and on stems 3-6 ft. long at the end of which is a great flower cluster that opens successive buds over a long period; flowers large wax-like petals of creamy white about center boss of olive black, very decorative in garden.

### OSBECKIA (os-BEK-i-ah)

Little known plants of the order of Melastomaceae, ranging from herbs to evergreen shrubs; the flowers, with five obovate petals, are showy and borne in heads or panicles. While quite tender, they may be grown in the house or greenhouse during the winter and plunged outdoors in summer, best in light shade.

—*White*. OSBE-1. Pkt. 35c

### OTHAKE

—*sphaerolata*. OTHA-1. Pkt. 15c

Rosy Wings. This is definitely one of the better annuals of recent introduction and especially good in dry seasons; easy to grow, long blooming period, flowers 1" across and carried in clusters of many flowers, each flower having a dense double center enriched by wing-like 3-lobed petals in a very pleasing silver pink, 2 ft.

### OXALIS (OK-sch-lis)

Small delicate plants, some useful in the rock garden, for bedding, hanging baskets and in the greenhouse. Usually best to start them in the spring, requiring an acid soil of a porous mixture of leaf mold, loam and sand; liquid manure if applied near maturity will encourage flower production.

—*corniculata purpurea*. OXAL-1. Pkt. 20c

The purple leaved bedding Oxalis with yellow flowers, a perennial grown as an annual.

### OXYSPHORA

—*paniculata tropica*. OXSY-1. Pkt. 35c

—*nepalensis*. PEDI-2. Pkt. 50c

### OXPETALUM

—*caeruleum*. OXY-1. Pkt. 20c

An easily grown hardy annual that, when sown in April, blooms by the end of June and continues till end of October. Also make a pretty pot plant; flowers 1" across, star-shaped in many flowered sprays, color an unusual blue of silvery veiled pastel quality as if printed on each petal.

### PAEONIA

Peony. Only recently has interest developed in the various wild species many of which flower weeks before the border varieties, and make possible two months of peony bloom. The species are all single flowered, with varied and highly ornamental leaves, and of colors unknown in the border varieties, including pure yellow and bright scarlet. They are also very valuable for hybridizing and many new forms have been developed recently by crossing the species.

Peony seeds require a full year, in most cases, before the plant appears above ground. During the first season root growth only is made, but with the first warm days of the following spring, fair sized true leaves appear. Growth for the first season or two is rather slow, but later the plants develop rapidly. Three or more years are required to reach flowering size. Sowings may be made in an open ground bed in spring and no attention is required except to keep the bed free from weeds.

—*chamaeleon*. PEON-1. Pkt. 80c

The earliest flowering of all Peonies and one of the quickest and most vigorous from seed. It blooms a full month before the border varieties, with crinkled flowers 4 inches across of pink or rose and rarely soft yellow. The leaves are very large and handsome, tinted brown in early stages of growth. The seed-pods are also highly ornamental, lined with rich red, while the seeds themselves are cobalt blue; apparently a true species, of unknown origin.

—*species mixed*. PEON-2. Pkt. 75c

From a large collection of European and Asiatic species. The color range is from bluish and pale yellow to deep red, with many intermediate shades. The mixture is probably strongest in P. *woodwardii* which makes a dense mound of fern-like leaves, over which are borne in profusion rather flat flowers, 3 inches or more across, of varying shades of pink. Included also are P. *lobata* with tulip-like flowers of intense scarlet, the most brilliant color known in Peonies; multi-colored P. *chamaeleon*, including yellow flowered and numerous others. These will flower for weeks before the herbaceous border sorts begin to bloom and offer a wealth of color for border and cutting, HP, 2-3 ft.

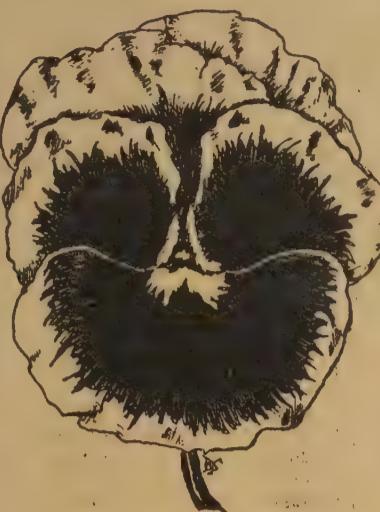
### PANICUM (PAN-i-kum)

Large genus of annuals and perennials of the Grass Family, a few being of value as ornamentals.

—*capillare*. PANI-1. Pkt. 10c

Witch grass; grown for drying when they are mixed in bouquets; annual, 2 ft.

### PANSY



#### Masterpiece. PANS-18. Pkt. 25c;

1/4 oz. \$2.00

Dainty ruffled and frilled flowers, colors rich in red and brown shades, compact plants excellent for borders.

#### Orchid-flowered. PANS-19. Pkt. 25c;

1/4 oz. \$1.50

Medium sized flowers, beautifully waved and curled, and in a wonderful color range, an European grown strain.

#### Scottish Exhibition. PANS-20. Pkt. 35c; 1/4 oz. \$3.00

Symmetrical strain of plants bearing 4" flowers of perfect form and substance; in a multitude of new and varied color combinations running to intense, heavily blotted flowers which are of circular outline with overlapping petals carried well above the foliage on stout stems.

#### Florist or Market Strain. PANS-21. Pkt. 25c; oz. \$4.75

An European grown strain of the highest quality and especially offered to plant growers. Extra choice.

#### trimarédeau. PANS-22. Pkt. 20c;

1/4 oz. \$1.25

Brilliant mixture, extra choice and especially recommended where color effect is most prized in beds, border or edgings. Plants are compact and especially free blooming, neat habit, very hardy; excellent blend in brilliant colors with some blottches, showy in mass planting.

#### hemicles. PANS-23. Pkt. 25c

Mixed, this type is the winter-flowering Pansy, in type like the Trimardeau but very early flowering.

#### TUFTED PANSIES: See Viola Cornuta.

### PARIS

Related to Trillium, but with smaller flowers and needing the same conditions of rather open woodland. Its flowers are normally green and the plant is more curious than showy.

#### polyphylla. PARIS-1. Pkt. 50c

A very striking plant 20-50 inches high with dark green leaves up to 6 inches long, the flowers are very large, the outer segments narrow and dark olive green, 4-5 inches long, the inner segments slightly shorter and yellowish green followed by a very large yellow or rust-colored berry; hardiness uncertain in the North.

#### PARKINSONIA

#### (pahr-kin-SOH-ni-ah)

Tropical or sub-tropical trees and shrubs of Pea Family.

#### aculeata. PARK-1. Pkt. 25c

Jerusalem-thorn or Rattana. Small thorny evergreen tree with feathery pendulous branches and loose clusters of fragrant yellow flowers; a fine hedge plant in far South standing dry conditions; easy from seed. Seed from Texas.

#### PARNASSIA (par-NAS-i-ah)

Belonging to the Saxifrage Family, these plants have smooth, mostly basal leaves and five-petaled flowers of white; like wet places, and are much beloved by wild-garden enthusiasts.

#### nubicola. PARN-1. Pkt. 30c

One of the best, with inch-wide white flowers and rather broad leaves, heart-shaped at the base; about 1 ft. high.

#### —paulistris. PARN-2. Pkt. 30c

Seed collected in Alaska and found in wet places and swamps.

#### PAROCHETUS (pa-roh-KEE-tus)

#### —communis. PARO-1. Pkt. 35c

Shamrock-pea. Also known as Blue-oxalis. Low growing creeper of the Pea Family with cobalt-blue flowers with pink wings; they are a very useful and popular pot plant for hanging baskets and flower the whole year. They do best in mixture of sand and humus in a semi-shaded place; in the North they are not real hardy; they also are fine in the rock garden.

#### PEDICULARIS

#### (pe-dik-eu-LAY-ris)

Wood-beauty, Lousewort. Annual and perennial plants of Figwort Family. Flowers 2-lipped, spiked clusters in whitish or reddish colors. They are fine wild garden flowers.

#### —greenlandica. PEDI-1. Pkt. 25c

Flowers are elephant heads; trunk, ears and all. Grows in wet places, 12-18-in. tall, July.

#### PELARGONIUM

#### (per-ahr-GON-ni-um)

The genus to which the common Geranium belongs. It is quite distinct but related to the genus Geranium. The common house Geranium is listed under P. *zonale*. They do well in any good soil and many do well in naturalizing. The seed can be sown early, either indoor or out and the plants grown on in the usual way. Raising the various Pelargonium and Geranium plants is very popular but to actually grow them from seed with the added interest of developing new varieties yourself, is very interesting.

#### —Super Swiss Giants. PANS-12. Pkt. 25c; 1/4 oz. \$3.00

This strain of Swiss Giants is from one of our best growers and is characterized by a predominance of rich wine colored flowers which far surpasses, in form and range of dark rich colors any blend of Swiss Giants, we have seen. Plants are uniformly compact and most of the blooms are waved, giving them the appearance of being frilled.

#### —Dwarf Swiss Giants. PANS-11. Pkt. 25c; 1/4 oz. \$1.25; oz. \$3.25

A very dwarf compact new strain; extra early flowering in complete color range running to brighter colors.

#### VARIOUS STRAINS OF PANSIES:

#### —America Blend. PANS-14. Pkt. 25c; 1/4 oz. \$3.00

An extremely bright blend, early flowering and dwarf with a good color range; plants sturdy, flowers large.

#### —Coronation Gold. PANS-15. Pkt. 25c; 1/4 oz. \$3.00

Giant golden yellow blooms, this is a specialty with one of our European growers and is considered very high class, with out blottches or markings.

#### —Engleman's Giants. PANS-16. Pkt. 35c; 1/4 oz. \$4.00

An early giant flowered strain on compact plants; flowers average 4" across and coming in a beautiful color range containing both light and dark shades with a good percentage of bronze and reds; never solid colors as each flower has a lighter tone around the edges of each petal.

#### —Maple Leaf Giants. PANS-17. Pkt. 25c; 1/4 oz. \$3.25

A fine large flowered strain of good shape and substance, plants compact yet husky growers having a luxuriant dark green foliage and large leaves; color range, both light and dark with rich dark velvety tones.

#### —Masterpiece. PANS-18. Pkt. 25c; 1/4 oz. \$2.00

Dainty ruffled and frilled flowers, colors rich in red and brown shades, compact plants excellent for borders.

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Symmetrical strain of plants bearing 4" flowers of perfect form and substance; in a multitude of new and varied color combinations running to intense, heavily blotted flowers which are of circular outline with overlapping petals carried well above the foliage on stout stems.

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An European grown strain of the highest quality and especially offered to plant growers. Extra choice.

#### —Trimardeau. PANS-22. Pkt. 20c;

1/4 oz. \$1.25

Brilliant mixture, extra choice and especially recommended where color effect is most prized in beds, border or edgings. Plants are compact and especially free blooming, neat habit, very hardy; excellent blend in brilliant colors with some blottches, showy in mass planting.

#### —hemicles. PANS-23. Pkt. 25c

Mixed, this type is the winter-flowering Pansy, in type like the Trimardeau but very early flowering.

#### —Tufted PANSIES: See Viola Cornuta.

### PARIS

Related to Trillium, but with smaller flowers and needing the same conditions of rather open woodland. Its flowers are normally green and the plant is more curious than showy.

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#### —hemicles. PANS-23. Pkt.



## NUDICAULE:

(Iceland Poppy.) A perennial, to 1 ft., blooming the first year from seed and rarely lasting more than 3 years. Its flowers are very beautiful and comes in a number of charming varieties, April to June.

—Amurensis, Yellow. POPY-2. Pkt. 15c (Yellow Wonder.) Sensational new Poppy with showy Buttercup yellow flowers on 2 ft. stems, easy, established plants often start blooming in March.

—Coonard Pink. POPY-3. Pkt. 15c. Gorgeous rose tints of varying intensity, a true strain; soft pink to deep rose, apricot, salmon, etc., 1 1/2 ft.

—El Monte. POPY-4. Pkt. 15c. A new, beautiful deep tangerine-orange large fringed flower.

—Imperial Jewels. POPY-5. Pkt. 15c; 1/2 oz. \$1.25

A new superb strong stemmed flower in an extra large color range, a gorgeous display.

—Gartford Giant Hybrids. POPY-19. Pkt. 10c; 1/4 oz. 50c

Giant crinkly petalled flowers on long stems, ideal cut flowers if picked in bud; beautiful colors in white, orange and reds, picotee-edged, 2 1/2 ft.

—Kelmcott Strain. POPY-22. Pkt. 20c; 1/4 oz. 50c

The flowers of our new Kelmcott Strain are larger than we have ever seen before on any variety of Iceland Poppy, often measuring 3" across. Although the petals are of heavier texture they have the same delicate waxy appearance; the stems are longer and so much more stiffer they tend

## POTENTILLA

## (poh-ten-TIL-ah)

Perennials suitable for beds and borders, with some excellent rock garden plants; thrive in sunny locations in any good garden soil but prefer sandy soils, blooming from July to September.

—climans. POTL-10. Pkt. 25c

POTL-9. Pkt. 25c A silver-leaved trailer, with beautiful salmon-rose flowers, for the border or large rock garden, HP, 1 1/2 ft.

—gibsoni. Scarlet. POTL-1. Pkt. 20c

Flowers June-October; 1 ft.

—Nepalensis, Miss Wilmott. POTL-5. Pkt. 20c

Bright carmine, best of species.

—White Beauty. POTL-6. Pkt. 20c

Fountains of snowy blossoms, foliage in autumn turns to bronze maroon, 1 1/2 ft.

—fruticosa. POTL-8. Pkt. 25c

One of the best shrubs for the rock garden bearing tiny rose-like flowers all summer; yellow or rarely pure white. A variable plant in stature and habit of growth, ranging from prostrate forms to 3 ft. bushes. Easy from seed. It may be also used as a low hedge; not at all fussy about soil or exposure.

—argyrophylla. POTL-11. Pkt. 25c

—nepalensis Hybrids. POTL-2. Pkt. 20c

Rose to rosy crimson color hybrids.

—Warrenii. POTL-3. Pkt. 15c

Large flowers in matted golden color, very good, 18 inches.

—Potentilla Blend. POTL-7X. Pkt. 15c

Contains many kinds.

## PRIMULA (PRIM-yo-uh-la)

Primroses. A very large genus, mostly low growing and flower parts always in 5s. They are exceedingly useful plants and adapted to various uses. We will attempt to divide the offerings into classes to make selections easier. They require a deep moist soil, coolness with some shade, sow seed late in fall or very early in spring. Greenhouse species follow special cultural requirements.

—denticulata. PRIM-2. Pkt. 25c

Dense heads of pale blue-purple flowers. Hardy alpine species used in rock garden.

—calderiana. PRIM-16. Pkt. 90c

(Often incorrectly called 'P. roylei'). A member of the group containing P. edgeworthii and P. scapigera, which are currently causing a sensation in Primula circles. Flowers 1 in. across, royal purple or rich maroon, darker in the center, with yellow eye, borne in many-flowered umbels on short stems. Grown in sheltered north facing crevices or in a pot, in soil rich in humus with some winter protection from sudden changes in temperature; very rare in cultivation.

—elwesiana. PRIM-17. Pkt. 50c

A very rare and unusual species, often placed in the related genus *Omphalogramma*, as its flower parts are in sixes instead of fives; the flowers are rather bell-shaped, with long fringed lobes of rich purple; does best in cool moist climates, seed is slow germinating, HP, 1 ft.

—kewensis. PRIM-3. Pkt. 30c

Golden yellow fragrant flowers, usually grown under glass, a well known hybrid.

—kingii. PRIM-19. Pkt. 50c

Bells of rich purple or blood crimson, over small leathery oval leaves; a most beautiful species but quite difficult; best grown in light shade in cold frame or alpine house.

—malacoides, Mixed. PRIM-4. Pkt. 35c

Fairy Primroses, a delicate looking plant popular as a winter greenhouse plant. Seeds sown in March will produce plants in late fall.

—obconica. Mixed. PRIM-5. Pkt. 50c

It makes a very popular winter house plant for greenhouse growing. This strain has gigantea-type flowers and is in the best colors.

—gr. fl. Mixed. PRIM-6. Pkt. 40c

A bright blend of one of the prominent European growers, large flowers.

—obliqua. PRIM-18. Pkt. 50c

A very beautiful species of the Nyctiopsis group with large pendulous flowers varying from white to deep yellow and rarely to flesh or pink. It needs rich soil in very light shade and should, if possible, be planted where it is buried in snow all winter, otherwise it should be carefully covered with rock wool while dormant.

## PORTULACA

## (POHR-tew-lak-ka)

Usually treated as a hardy annual in the North although they are perennials. They are especially pretty in beds, borders, edging or in the rock garden, requiring full sun and average garden soil on the loamy side; they stand dry situations. Seed should be sown direct to the garden, mixing some soil with the seed and then pressing the surface of the bed so as to make a contact between the seed and the soil, sow in April. Plants are low growing and the flowers are very beautiful, 2-3 in. tall.

—grandiflora. Double Mixed. PORT-1. Pkt. 20c

Extra select, the flowers look like little roses, in pink, lavender, yellow, orange and red shades, very showy, 4 in. tall.

—Single Jewels. PORT-2. Pkt. 10c; 1/2 oz. 30c

A very free flowering dazzling crimson selection, about four times larger than ordinary single varieties.

—Single Mixed. PORT-3. Pkt. 10c; 1/2 oz. 30c

Bright glistening flowers in all the colors of Portulaca; they are especially pretty with their wide open flowers.

—All Mixed. PORT-4X. Pkt. 15c

A hand made blend of all.

—sapphirina. PRIM-22. Pkt. 50c

A tiny species, with small leaves and short stems bearing one to four rather small flowers of brilliant deep blue. Not one of the easiest species, requiring cool rich gritty soil and ample moisture during the growing season. HP, 2 in.

—sikkimensis. PRIM-21. Pkt. 50c

An easily grown species with long-petaled basal leaves and foot-high naked stems from which dangle a cluster of drooping yellow flowers. Seed germinates readily, and the plants will grow in sun if given plenty of moisture. HP, 1 ft.

—sinensis fimbriata Mixed. PRIM-7. Pkt. 50c

Chinese Primroses. Popular greenhouse flowering plants blooming in late autumn from March sown seed. They are much like P. malacoides in appearance. This strain has fimbriated petals. Extra choice.

—fimbriata Mixed. PRIM-8. Pkt. 35c

Giant-sized flowers, fringed petals.

—Giants. PRIM-9. Pkt. 50c

Made up only from the giant flowering varieties, very extra.

—Fringed. PRIM-10. Pkt. 50c

A Holland strain of the best fringed varieties.

—veris elatior. PRIM-11. Pkt. 25c

Oxlip. Pretty little Wild Primroses of N. Europe; 5 in. tall with nodding yellow flowers.

—White Swan. PRIM-12. Pkt. 35c

A pretty white flowered variety.

—Hybrids. PRIM-13. Pkt. 35c

Extra choice strain of this hardy species.

## PROBOSCIDEA

## (prob-oh-SID-ee-ah)

Proboscis Flower, Unicorn Plant. Annual and perennial with large, long stemmed leaves, large purple flowers and okra-like fruits.

—jussieui. PROB-1. Pkt. 15c

Listed incorrectly as *Martynia*. Native from corn belt southward and grows both for ornament and for its fruits, which when soft and immature are pickled, either alone or with other vegetables. In the North start indoors under glass and set out after danger of frost is passed. Set out like cucumbers.

—RHON-1. Pkt. 75c

Proboscis Flower, Unicorn Plant. Annual and perennial with large, long stemmed leaves, large purple flowers and okra-like fruits.

—RHON-2. Pkt. 75c

Proboscis Flower, Unicorn Plant. Annual and perennial with large, long stemmed leaves, large purple flowers and okra-like fruits.

—RHON-3. Pkt. 75c

Proboscis Flower, Unicorn Plant. Annual and perennial with large, long stemmed leaves, large purple flowers and okra-like fruits.

—RHON-4. Pkt. 75c

Proboscis Flower, Unicorn Plant. Annual and perennial with large, long stemmed leaves, large purple flowers and okra-like fruits.

—RHON-5. Pkt. 75c

Proboscis Flower, Unicorn Plant. Annual and perennial with large, long stemmed leaves, large purple flowers and okra-like fruits.

—RHON-6. Pkt. 75c

Proboscis Flower, Unicorn Plant. Annual and perennial with large, long stemmed leaves, large purple flowers and okra-like fruits.

—RHON-7. Pkt. 75c

Proboscis Flower, Unicorn Plant. Annual and perennial with large, long stemmed leaves, large purple flowers and okra-like fruits.

—RHON-8. Pkt. 75c

Proboscis Flower, Unicorn Plant. Annual and perennial with large, long stemmed leaves, large purple flowers and okra-like fruits.

—RHON-9. Pkt. 75c

Proboscis Flower, Unicorn Plant. Annual and perennial with large, long stemmed leaves, large purple flowers and okra-like fruits.

—RHON-10. Pkt. 75c

Proboscis Flower, Unicorn Plant. Annual and perennial with large, long stemmed leaves, large purple flowers and okra-like fruits.

—RHON-11. Pkt. 75c

Proboscis Flower, Unicorn Plant. Annual and perennial with large, long stemmed leaves, large purple flowers and okra-like fruits.

—RHON-12. Pkt. 75c

Proboscis Flower, Unicorn Plant. Annual and perennial with large, long stemmed leaves, large purple flowers and okra-like fruits.

—RHON-13. Pkt. 75c

Proboscis Flower, Unicorn Plant. Annual and perennial with large, long stemmed leaves, large purple flowers and okra-like fruits.

—RHON-14. Pkt. 75c

Proboscis Flower, Unicorn Plant. Annual and perennial with large, long stemmed leaves, large purple flowers and okra-like fruits.

—RHON-15. Pkt. 75c

Proboscis Flower, Unicorn Plant. Annual and perennial with large, long stemmed leaves, large purple flowers and okra-like fruits.

—RHON-16. Pkt. 75c

Proboscis Flower, Unicorn Plant. Annual and perennial with large, long stemmed leaves, large purple flowers and okra-like fruits.

—RHON-17. Pkt. 75c

Proboscis Flower, Unicorn Plant. Annual and perennial with large, long stemmed leaves, large purple flowers and okra-like fruits.

—RHON-18. Pkt. 75c

Proboscis Flower, Unicorn Plant. Annual and perennial with large, long stemmed leaves, large purple flowers and okra-like fruits.

—RHON-19. Pkt. 75c

Proboscis Flower, Unicorn Plant. Annual and perennial with large, long stemmed leaves, large purple flowers and okra-like fruits.

—RHON-20. Pkt. 75c

Proboscis Flower, Unicorn Plant. Annual and perennial with large, long stemmed leaves, large purple flowers and okra-like fruits.

—RHON-21. Pkt. 75c

Proboscis Flower, Unicorn Plant. Annual and perennial with large, long stemmed leaves, large purple flowers and okra-like fruits.

—RHON-22. Pkt. 75c

Proboscis Flower, Unicorn Plant. Annual and perennial with large, long stemmed leaves, large purple flowers and okra-like fruits.

—RHON-23. Pkt. 75c

Proboscis Flower, Unicorn Plant. Annual and perennial with large, long stemmed leaves, large purple flowers and okra-like fruits.

—RHON-24. Pkt. 75c

Proboscis Flower, Unicorn Plant. Annual and perennial with large, long stemmed leaves, large purple flowers and okra-like fruits.

—RHON-25. Pkt. 75c

## SAXIFRAGA

(sak-SIF-rah-gah)

**Bracteata.** Mostly hardy perennials, rarely annual, native of temperate and arctic regions; flowers mainly yellow or white and the leaves usually in rosettes at base of plant. All are beautiful and interesting subjects for rock gardens or walls, the plant being as ornamental as the flowers. Combined with *Sempervivums* and *Sedums*, they can make a rock garden. Seed can be started in late summer, protected during winter and the plants set out in the spring.

—winter or early spring sowing is best.

—*virgata.* **SAX-1.** Pkt. 25c

Stream side, native western species, best in wet places, white flowers, 8-10-in. tall, flowering July-Aug.

—*diversifolia.* **SAX-4.** Pkt. 35c

Forms large clumps of leathery egg-shaped leaves with leafy stems bearing a number of golden stars ½-¾ inch across. Likes marshy places or will grow in a shaded foundation planting if not too dry; not too large for the rock garden, HP, 8-13 inches.

—*lilacina.* **SAX-2.** Pkt. 25c

Pale red flowers, very ornamental, from Himalayas.

—*purpureascens.* **SAX-3.** Pkt. 35c

A very handsome species of the *Mejasea* type, with large glossy leaves, clump-forming, and nodding purple bells; foliage turns red in autumn. For the shady border or edges of the rock garden, easy and vigorous, HP, 9 inches.

**SCABIOSA (skay-bi-OH-sah)**

Mourning Bride or Pin Cushion Flower. Easily grown in an open sunny situations, seeds being either started indoors or planted direct to garden; pinching back the annual forms will produce nice bushy plants; keep flowers cut and they will bloom all summer, excellent cut flowers. As the annual forms flower best in the early part of the season, start seed early for the best bloom, in milder sections sow in the fall.

—*caucasica*, House Hybrids. **SCAB-1.**

Pkt. 25c

Green and bronze foliage, 10-12-ft. Many beautiful varieties mixed.

These improved giant hybrids are exquisite in the garden and an excellent cut flower, one of the loveliest perennials. Colors light and dark blue, and various mauves and lilac shades.

—*columbaria*, Lavender. **SCAB-2.**

Pkt. 20c

Delicate Lavender. Perennial in an attractive lavender-blue, 1½-ft.

—*Delicate Pink* **SCAB-3.** Pkt. 20c

Orchid pink with a pink sheen, 2-ft.

—*Imperial Giants*, Hybrids. **SCAB-4.**

Pkt. 10c; ½ oz. 50c

A great advance in annual Scabiosa development, extremely large well formed flowers which are fully double, composed entirely of broad frilly petals, rounded bee-hive shape; plants very upright, long wiry stems and excellent for florist or garden planting; new and unusual colors, 3½-4 ft.

—*Imperial Giant*, Blue Moon. **SCAB-5.**

Pkt. 10c; ½ oz. 60c

Large dark lavender-blue, made up of broad, heavy, waxy petals without the pin-cushion center, pretty.

—*Giant Flowering Hybrids*. **SCAB-6.**

Pkt. 20c

An extra select large flowering compact hot house strain.

## EIGHT SPECIAL STRAINS ANNUAL

## SCABIOSA:

Definitely a much better strain than the ordinary strains; selected by one of the best flower seed growers thru many years, these varieties have been improved to near perfection in purity, size of bloom, as well as in the length of the strong wiry stems. We especially recommend these varieties to critical Scabiosa growers.

—*Ageratum Blue*. **SCAB-7.** Pkt. 10c;

oz. 90c

Pretty light blue.

—*Azure Fairy*. **SCAB-8.** Pkt. 10c;

oz. 90c

Azure blue, fine color.

—*Leveliness*. **SCAB-9.** Pkt. 10c;

oz. 90c

Salmon rose shades.

—*Orchid Shades*. **SCAB-10.** Pkt. 10c;

oz. 90c

Soft rose-lavender blends.

—*Peach Blossom*. **SCAB-11.** Pkt. 10c;

oz. 90c

Peach blossom pink.

—*Rosette*. **SCAB-12.** Pkt. 10c;

oz. 90c

Deep suffused salmon.

—*Salmon Beauty*. **SCAB-13.** Pkt. 10c;

oz. 90c

Pure salmon, rich coloring.

—*Shasta Improved*. **SCAB-14.** Pkt. 10c;

oz. 90c

Pure white of enormous size.

—*Mix of Above 8 Varieties*. **SCAB-15X.**

Pkt. 10c; oz. 90c; ¼ lb. \$3.00

**SCHIZANTHUS**

(sky-ZAN-thus)

Beautifully marked and unusually formed flowers in chamois, rose, lavender, and purple shades with fern-like foliage. Excellent for pot culture the year round and partly shaded beds, doing best in cool climate; pinch tops off young plants to induce bushy plants; for winter use, sow in Sept., for February to May bloom; for summer bloom outdoors, sow indoors in March, setting plants out when weather becomes warm in May. Schizanthus makes up beautifully in corsages, are long lasting and very pretty, 1½-ft.

—*Dr. Badger's Hybrids*. **SCHZ-1.**

Pkt. 20c

Large flowers; brilliant range of colors from light pink to deep purple through rose, but without any whites. Each flower with large golden blotch. Plants compact, 12-14-in. tall. Outstanding for the best florist's trade.

—*Butterfly Mixture*. **SCHZ-2.** Pkt. 15c

A fine bright mixture free flowering, compact pyramidal plants, 12-15-in.

—*Chislehurst Hybrids*. **SCHZ-4.** Pkt. 15c

A large flowered pretty French strain in violet and purple shades.

—*Schizanthus Blend*. **SCHZ-5X.**

Pkt. 15c; ¼ oz. 95c

Blend of above strains and others from different growers. High class in every way.

—*wisetonensis*. **SCHZ-6.** Pkt. 20c

Large flowers; brilliant range of colors from light pink to deep purple through rose, but without any whites. Each flower with large golden blotch. Plants compact, 12-14-in. tall. Outstanding for the best florist's trade.

—*Flamingo*. **SOL11.** Pkt. 20c

Scarlet flowers.

—*racemigerum*. **SOLN-1.** Pkt. 20c

Red Currant Tomato.

—*nigra*. **SOLN-10.** Pkt. 35c

Mixed Solanum. **SOLN-7X.** Pkt. 15c

All species and varieties mixed.

Hybrid between *S. pinnatus* and *S. grahamii* showing many variations in color and form, rose shades, 16-in.

## SEDUM (SEE-dum)

Mostly hardy, succulent or fleshy, erect or prostrate plants, easily grown and of much use in rock gardens. They do best in a light soil and a sunny location; no rock garden can be considered complete without its *Sedums*; they are especially appealing to children. Sow seed in summer when the seedlings can be wintered over for setting out in their permanent position in the spring, or they can be started in the spring.

—*caeruleum*, *azureum*. **SEDM-1.** Pkt. 20c

Blue flowered annual for rockery.

—*SENECIO (se-NEE-shi-oh)*

Groundsel. Large and variable genus, herbs, shrubs and trees belonging to Daisy Family, including the florist pot plant *Cineraria*. In general, they are easily grown in good loamy soil.

—*diversifolia*. **SENE-5.** Pkt. 25c

Collected in the Himalayas, but we have no description as yet.

—*purshiana*. **SENE-3.** Pkt. 20c

A native western species, light gray foliage, 6-10 inches tall.

—*scandens*. **SENE-4.** Pkt. 25c

Very attractive low climber with loose panicles of yellow-rayed daisies in summer; fairly hardy but should have some winter protection in N. Fine grown against a south wall, HHP, 3-4 ft.

—*SEPIA (sep-ee-ah)*

Flowers are like miniature Hollyhocks in spikes or clusters; should be planted in rich sandy soil; the perennial species bloom over a long period; usually about

—*Stark's Hybrids*. **SIDA-1.** Pkt. 15c

Hardy perennial in a wide color range; flowers like miniature Hollyhocks, 3-ft.

—*SEPIA (sep-ee-ah)*

Small group of Western plants closely related to, and often called, Geum; one or two are also found in N.E. Asia. They are rather dwarf, hardy perennials, with compound leaves and Geum-like flowers, but are much more hardy; suited to the rock garden or wild garden. Culture same as for Geum.

—*ciliata*. **SIEV-1.** Pkt. 30c

Soft, rather hairy deep cut leaves and flowers of old rose and cream followed by plump seed heads. A plant of cool grassy meadows in the Rockies, easily grown in the rock garden in full sun or light shade, likes a fair amount of moisture, HP, 6-18 inches.

—*SEPIA (sep-ee-ah)*

Catchfly. Annual, biennial and perennials of the Pink Family, in all forms in many species. Many are showy and of value in the garden or rock garden. If seed of the annuals is sown in the fall much earlier flowers will be secured.

—*america*, *pendula*. **SILE-1.** Pkt. 10c

Double Mixed. A smooth plant with clusters of rose and white flowers; July-Sept. Sow seeds in position in late fall or early spring, 20-in.

—*compacta*, *Peach Blossom*. **SILE-2.**

Pkt. 15c

Dwarf Double. Soft hairy foliage and flesh colored flowers in graceful drooping racemes, mid-summer, 10-in.

—*New Art Shades*. **SILE-3.**

Pkt. 15c

Dwarf Double. A splendid mixture containing all the new colors; a choice rock garden strain.

—*White*. **SILE-4.** Pkt. 10c

Lobel's Catchfly. Hardy annual, 5-in. in pure white.

—*fortunei*. **SILE-5.** Pkt. 10c

Bright rose, perennial best grown as a hardy annual.

—*schaffii*. **SILE-6.** Pkt. 10c

Perennial, rosy-purple flowers, trailing habit; pretty border or rock plant, 6-in.

—*SMILACINA (smy-lah-SY-nah)*

Perennial woodland plants called False Solomons Seal. (Lily Family). They have creeping root stalks, leafy stems and small flowers in terminal clusters followed by red of greenish berries. Easily colonized in the wild garden.

—*stellata*. **SMIL-1.** Pkt. 20c

Wild Lily-of-the-Valley. Pretty white flowers, 8-12-in. tall, May-June. Found in the north-western states.

—*SOLANUM (soh-LAY-num)*

A very large genus, the species most of interest having colored berries which are very decorative; they usually are grown as pot plants for winter use. Commonly known as Jerusalem Cherry.

—*capsicatum*. **SOLN-1.** Pkt. 15c

Greenhouse plant, 15-in. tall, having small red ornamental fruits.

—*Clevelandi*. **SOLN-2.** Pkt. 20c

A select variety of Jerusalem Cherry, nice foliage and bright fruits, for pots.

—*Hlavacek's Masterpiece*. **SOLN-3.**

Pkt. 20c

Compact variety, 15-in., bright berries.

—*Henderson, New Paterson*. **SOLN-4.**

**TULIPA (TEW-li-pah)**

There are great many wild species of Tulips that are greatly admired by fanciers, especially for the rock garden and some of these have been used in breeding the newer strains of border varieties. Many of the species are rather small in both plant and flower but some have the largest and most brilliant blooms of the entire genus, with some having several flowers to the stem. Seed requires several weeks to germinate and should be sown early in pots or carefully prepared seed beds, several years are generally required for the bulbs to reach blooming size but in this way a collection of rare and expensive kinds can be acquired at little expense.

**TULIP-1. Pkt. 50c**  
Narrow buds open to widely expanded flowers, the outer segments flushed with carmine, the inner white, blotted yellow at base; close to lovely *T. clusiana*, and quite rare. Likes light sandy soil in sun and fine for rock garden or border, H&B, 6-16 inches.

**UNIOLA (eu-NY-oh-lah)**

Spike Grass. Native perennial grasses. Some species are grown as ornamental grasses.

**UNIO-1. Pkt. 15c**  
Perennial, 5-ft., pretty in the border.

**URSINIA (ur-SIN-i-ah)**

Mostly hardy annuals having daisy-like flowers in orange shades on long wiry stems standing 2-3-ft. above low tufts of finely cut foliage; plants bloom profusely in mid-summer to late fall making a colorful addition to the sunny border; they can be potted up for winter bloom indoors.

**USIN-1. Pkt. 15c**  
Jewels-of-the-Veldt, orange flowers with deep purple centers, 1-2 ft.

**Hybrids.** **USIN-2. Pkt. 15c**  
Pretty yellow and orange shades.

**VACCINIUM (vak-SIN-i-um)**

Deciduous shrubs and trees native of the colder parts even to the Arctic Circle; it includes plants known as Blueberry, Cranberry, Cowberry, Whortleberry, etc. Some are grown for their ornamental foliage and others for their fruits. They are easily grown from seed and require a lime free soil, thriving best in a sandy, moist peat soil.

**donicum.** **VACC-1. Pkt. 25c**

**VALERIANA****(vah-lee-ri-AY-nah)**

Hardy plants with small white or rose flowers in spikes or flat-topped clusters; easily grown and valuable for garden effect or for cut flowers. Known as Garden Heliotrope on account of its fragrance; they are excellent hardy border plants.

**rubra. Mixed.** **VAL-1. Pkt. 15c**  
Perennial alpine species in White, rose and dark red.

**VANDA (VAN-dah)**

Beautiful tropical epiphytic orchids, having racemes of fragrant white, lilac, blue or greenish flowers, usually with saccs or spurs; they require a high temperature and humid atmosphere during the growing period, during the winter a drier and cooler place and exposed to the sun. See Orchids.

**caerulea.** **VAND-1. Pkt. \$1.00**  
Blue Orchid. Light blue flowers, 4 inches across in erect racemes, 18 inches tall; from the Himalayas.

**VENIDIUM (ve-NID-i-um)**

Hardy annuals and perennials allied to the *Arctotis*; their brilliant orange or yellow flowers suggest small sunflowers; they are valuable in the garden or greenhouse as a color accent and are valuable cut flowers. Generally grown as annuals by starting the seed indoors; space a foot apart, in sunshine and well drained soil.

**calendulaceum.** **VNID-1. Pkt. 10c**  
2-in. single golden yellow flowers with black centers, hardy annual, 10-in.

**fastuosum, Golden Orange.** **VNID-2.**

**Pkt. 20c**  
Beautiful golden orange flowers with dark centers 4-in. across, silky gray foliage, 2-ft.

**Hybrids.** **VNID-3. Pkt. 20c**  
Double rowed Daisies with 3-4-in. flowers in pastel colors of cream, primrose, but, lemon, orange, usually with irregular zoning of brown, blue or black, 2-ft.

**VERBASCUM (ver-BAS-kum)**

Thrives in full sunshine and hybridizes readily with the genus *Celsia*, producing many new color forms. As a rule they make good specimen plants in the background of the hardy border.

**phoeniceum** Hybrids. **VEBS-1.**

**Pkt. 15c**  
Grows 5-ft. flowers with prominent purple stamens. The hybrids are beautiful and come in a varied combination. Perennial.

**Gigantea** Mixed. **VERB-1. Pkt. 15c;**

**1/4 oz. 90c**

This strain should not be confused with the ordinary Verbenas; both the trusses and flowers are much larger and the plants decidedly more vigorous. Most of the varieties in this strain produce more compact masses of upstanding flowers over the entire plant than any other strain.

**Hybrids gr. II.** **VERB-2. Pkt. 15c;**

**1/4 oz. 60c**

Mammoth, Choice Mixed. Robust spreading growth, plants often 2-ft. across, flowers 1-in. across, quick to come into flower.

**gr. II. Beauty of Oxford.** **VERB-3.**

**Pkt. 15c; 1/4 oz. 75c**

Hybrids, a beautiful giant strain in shades of rose-pink to rose-red, brightest produced from plants with the florets 1-in. across.

**Verben Blend.** **VERB-4X. Pkt. 15c;**

**1/2 oz. \$1.00**

Mammoth, Choice Mixed. Robust spreading growth, plants often 2-ft. across, flowers 1-in. across, quick to come into flower.

**gr. II. Beauty of Oxford.** **VERB-3.**

**Pkt. 15c; 1/4 oz. 75c**

Hybrids, a beautiful giant strain in shades of rose-pink to rose-red, brightest produced from plants with the florets 1-in. across.

**Verben Blend.** **VERB-4X. Pkt. 15c;**

**1/2 oz. \$1.00**

A blend of all the giant flowered annual Verbenas, including those above.

**VARIOUS SPECIES:**

**abyssinica.** **VERB-12. Pkt. 50c**

**subletia compacta.** **VERB-5. Pkt. 15c**  
A new variety, dark violet-red, 10-in. high, blooming end of June till frost, hardy annual.

**purpurascens.** **VERB-6. Pkt. 15c**

Large flowered, 15-in. tall, blooming end of May till frost, dark carmine.

**bipinnatifida.** **VERB-7. Pkt. 15c**

Blooms June till Nov. continuously in showy blue-lavender clusters; ferny, feathery foliage, usually winter hardy perennial but so quick it may be treated as an annual.

**bonariensis.** **VERB-8. Pkt. 15c**

3-ft. high, a new Swiss type, fine for cut flowers, highly recommended.

**Tobay Variety.** **VERB-9. Pkt. 20c**

By far the best and showiest strains of this species, coming from the Arroyo Tobay of Paraguay; compared with the usual strains of this species, it is more floriferous, the trusses heavier, more massive and compact; blooming season covers several months, color soft bluish-lavender; spectacular in the border, 3-ft.

**erinoides type.** **VERB-10. Pkt. 15c**

Heat resisting plant spreading into a fine carpet, violet flowers.

**Venosa.** **VERB-11. Pkt. 15c**

Compact purple clusters, 10-in. tall, perennial grown as an annual.

**VERBESINA****(ve-BE-sin-ah)**

Annuals and perennials highly useful in the border and rock garden; hardy, free flowering, thrive in an open sunny position or light shade, easily grown from seeds.

**alissima.** **VERO-3. Pkt. 25c**

**spicata ensiana.** **VERO-2. Pkt. 15c**

Blue or pink flowers in spike-like racemes, 1 1/2-ft., perennial.

**VIBURNUM (vy-BUR-num)**

Deciduous and evergreen shrubs and trees widely distributed in the northern hemisphere; they are among the most ornamental and useful shrubs and make good shrubbery plants in the shrub border. Their foliage is especially beautiful in the fall; flowers are showy and followed by attractive fruits. Sow seeds when ripe or stratify them when received.

**erubescens.** **VIB-1. Pkt. 25c**

**coriaceum.** **VIB-2. Pkt. 25c**

**stellulatum.** **VIR-3. Pkt. 25c**

**nervosum.** **VIR-4. Pkt. 25c**

**VINCA ROSEA (VIN-kah)**

Madagascar Periwinkle is a tender perennial grown in the North as an annual.

It is a good garden subject with rosy-purple flowers and used in parks as a bedding plant with good effect; sow seeds early in a warm greenhouse and try to transplant several times before setting out. Sun or partial shade.

**Pure White.** **VINC-2. Pkt. 10c**

**Crimson.** **VINC-3. Pkt. 10c**

**Mixed.** **VINC-4X. Pkt. 10c**

**VIOLA**

The genus includes a number of species of small, mostly perennial, plants having attractive blue, white, lavender or yellow spurred flowers in early spring or summer. The Pansy is the best known (see Pansy). Violets are second in popularity. All are propagated by seeds. They like sunshine but not the hot kind.

**CORNUTA:** Flower with very long spur, and called Tufted Pansies or the Garden Viola. They are very pretty for edging the border or for ground cover under trees. Grow very much as you would Pansies.

**Bicolor.** **VIOL-1. Pkt. 25c**

(V. papilio). Light violet-blue, very pretty.

**Blau Schonheit.** **VIOL-3. Pkt. 25c**

A new large German variety in pure clear blue, highly recommended.

**Orange Triumph.** **VIOL-4. Pkt. 25c**

A new blend of new colors in Violets, highly recommended Swiss strain.

**Above Varieties Blended.** **VIOL-6X. Pkt. 20c**

**Nigra, Black Imp.** **VIOL-7. Pkt. 25c**

Quaint little pansy-flowers that seem to have been nipped from black velvet, exceedingly floriferous, comes true from seed, 3 months to bloom; treat as an annual.

**Scotch Hybrids.** **VIOL-8. Pkt. 25c**

Extra choice bedding Violets that are highly recommended.

and long stemmed flowers. An outstanding variety.

**S. & G. Special Blend.** **VIOL-10.**

This is the best blend of Violets grown by one of our Netherlands growers and of which they highly recommend.

**W-F Special Blend.** **VIOL-11. Pkt. 35c**

Pkt. 25c

This blend of bright gay colors for sun.

passes any mixtures of Violets we have ever seen. The bright shades of self

colors of red, yellow, blue and apricot combined with many shades which are blotted make these a supreme mixture.

**saxatilis.** **VIOL-12. Pkt. 25c**

Dawson's Strain; Johnny-Jump-Ups. Color

selections of *Viola* *saxatilis*. Little "pansy"

flowers in extraordinary profusion from

late spring to late autumn. Range of color

exceedingly wide, not easy to

find two plants with flowers alike. This

strain seems to withstand summer heat

better than do Johnny-Jump-Ups

strains selected from *Viola tricolor*. Best

treated as Annuals.

**Blend of all Violets.** **VIOL-13X. Pkt. 20c**

This is made up of all the above and other varieties.

**VERBENA**

Perennial in the South but grown as

hardy annuals in the North, sowing seeds

indoors and transplanting outdoors in May,

1-ft. apart, or seeds can be sown direct in

April or May, blooming in mid-summer.

Colors pink, rose, red, lavender, blue,

purple and white, thriving in poor soil and

withstanding drought well.

**HORTENSIA (Garden Verbena).**

**Gigantea Mixed.** **VERB-1. Pkt. 15c;**

**1/4 oz. 90c**

This strain should not be confused with the ordinary Verbenas; both the trusses and flowers are much larger and the plants decidedly more vigorous. Most of the varieties in this strain produce more compact masses of upstanding flowers over the entire plant than any other strain.

## VEGETABLE SEEDS

All prices are post paid, unless mentioned otherwise. Quarter and half pound lots, at pound rate. We will be pleased to quote, on request, lowest prices on larger quantities.

### ASPARAGUS.

Easily grown from seed which should be sown as early in the spring as possible. Thin the seedlings 3-4 inches apart and transplant to their permanent location when 1 or 2 years old, spacing them 18 inches apart in 2½, or more, foot rows. A pkt. will produce 100 plants; 3 oz. for 100 ft. row; or 12 lbs. per acre. Seeds break ground in about 20 days. 4000 roots required per acre.

### Mary Washington.

This is the best of all the varieties; is rust proof and blight resistant; shoots are long without branching and resists hot weather without blowing out.

### BEANS. Bush Varieties.

Bush beans do well in most any medium rich garden soil with the wax sorts doing their best on a more sandy soil. Plant after danger of frost, in rows, about 28 inches apart, sowing ½ inch deep and about 2-3 inches apart in the row. Packet will plant 100 feet and contains about 10 oz. of seed; a good bushel or 60 lbs. per acre.

### GREEN PODDED SORTS:

#### Bountiful.

Pkt. 25c; lb. 45c; 5 lbs. \$2.00

48 days. Early flat podded, stringless and of highest quality; excellent shipper. It is reliable everywhere, excellent for freezing, seed flesh color.

#### Burpee Stringless.

Pkt. 25c; lb. 45c; 5 lbs. \$2.00

49 days. A very popular old standby and probably the best seller, especially valuable for the home garden; very meaty and stringless; seed chocolate color. Dwarf Horticultural.

Pkt. 25c; lb. 45c; 5 lbs. \$2.00

54 days. Pods 5-6 inches long; flat; almost stringless when young; used both as a string or shell bean. The pods are splashed with red; making them very attractive for market display; best early green shell bean. Also called bush Cranberry Bean. They are good for dry beans.

#### Full Measure.

Pkt. 25c; lb. 45c; 5 lbs. \$2.00

54 days. A very popular round green podded sort in the Ohio Valley; pods 6 inches long, stringless and of the best quality.

#### Giant Stringless Green Pod.

Pkt. 25c; lb. 45c; 5 lbs. \$2.00

51 days. A meaty round podded sort, very popular all over the U. S. and excellent for all uses, strong flavor; seed brownish-red.

#### Keystonian.

Pkt. 25c; lb. 45c; 5 lbs. \$2.00

52 days. Dark green pods, 6-6½ inches long round, best quality and doing best in all sections.

#### Red Valentine.

Pkt. 25c; lb. 45c; 5 lbs. \$2.00

49 days. One of the main round podded sorts in the south, it making excellent string beans under adverse conditions; very popular in the mountain regions also; slightly stringy; seed red, marbled.

#### Tendergreen.

Pkt. 25c; lb. 45c; 5 lbs. \$2.00

53 days. An extra good quality round podded sort, excellent flavor and very popular everywhere; seed bluish, mottled.

#### Tennessee Green Pod.

Pkt. 25c; lb. 45c; 5 lbs. \$2.00

49 days. A popular flat green pod, with strings, mainly in the mountain sections of W. Va., Ky. and Tenn. where it seems to do best under the mountain climate where the stringless sorts seem to ripen or "get tough" easily. Pods very long. Seed brown.

### WAX OR YELLOW PODDED SORTS:

#### Pencil Pod Black Wax.

Pkt. 25c; lb. 55c; 5 lbs. \$2.25

52 days. The most popular of the round podded wax varieties; always a sure beater; pods 5½-6 inches long and of the very best quality; good for freezing, too. Seed black.

#### Saier's Golden Wax.

Pkt. 25c; lb. 55c; 5 lbs. \$2.25

52 days. The most popular flat podded wax variety; pods flat, 5 inches long, stringless, of good quality, rust proof.

### BEANS. Pole or Stick Sorts.

The pole beans require supports for the best crop; grown mainly in the South where the seasons are longer. Pods generally are more fleshy than the bush types and can be used in a much more advance stage. Plant in hills, 2-3 seeds per hill, usually 3 feet apart and on three stakes, the tops being tied together for supports. Packet will plant 100 hills, or 150 foot row; bushel per acre.

#### Kentucky Wonder.

Pkt. 25c; lb. 50c; 5 lbs. \$2.25

65 days. This is the most popular variety of the pole beans; pods 7-9 inches long, round, meaty and excellent for freezing as well as for all other uses; stringless when young. Seed tan. Also called Old Homestead.

#### Missouri Wonder.

Pkt. 25c; lb. 50c; 5 lbs. \$2.25

65 days. Very productive late variety, pods 5 inches long, flat, tough and stringy but a very popular variety in the South. Seed light flesh, peppered brown. Also called Noxall.

#### Lazy Wife.

Pkt. 25c; lb. 50c; 5 lbs. \$2.25

72 days. A late productive sort with 5-6 inch pods, flat, stringless, very fleshy, brittle, attractive and excellent quality, very popular, seed round and white.

#### London Horticultural.

Pkt. 25c; lb. 50c; 5 lbs. \$2.25

70 days. Also known as October Bean. Hardy, productive, pods 5-6 inches long, flat, stringless, good quality; it is used very much as a green shell bean, but good also for snap or dry shell beans. A Cranberry bean; seed white or light streaked with red.

#### McCaslan.

Pkt. 25c; lb. 50c; 5 lbs. \$2.25

70 days. A prolific white seeded sort, one of the most popular Southern sorts; pods stringless, meaty and excellent quality.

#### Red Speckled Cut Short.

Pkt. 25c; lb. 50c; 5 lbs. \$2.25

75 days. Called Corn-hill Bean. Hardy, late, productive, pods 3½-4 inches long, flat, stringy, fair quality, good for a corn hill bean. Seed small, white splashed red.

#### Scarlet Runner.

Pkt. 25c; lb. 60c; 5 lbs. \$2.50

65 days. Can be used like a lima bean and while grown riotously for its pretty scarlet flowers which are very ornamental, the pods make excellent green shelled beans; 6-8 inches long. Suitable for growing on corn as well as poles.

#### Tennessee Wonder.

Pkt. 25c; lb. 50c; 5 lbs. \$2.25

70 days. Also called Egg Harbor. Similar in habit to Kentucky Wonder but with immensely larger, straighter, smoother and more creased-back pods; 8-9 inches long, tinged purple, slightly stringy and suitable best for green shelled beans rather than for snap beans.

#### Striped Creaseback.

Pkt. 25c; lb. 50c; 5 lbs. \$2.25

72 days. Also called Nancy Davis and Scotia. A very hardy and productive cornfield bean, pods round, 6½-7 inches long, crease-backed, slightly stringy, very fleshy, good quality. Seed olive green with dark stripe.

#### White Creaseback.

Pkt. 25c; lb. 50c; 5 lbs. \$2.25

63 days. A very hardy, very early, round podded sort, 5-6 inch pods, slightly stringy, brittle and fine grained; quality fair, very popular white seeded sort.

#### White Kentucky Wonder.

Pkt. 25c; lb. 50c; 5 lbs. \$2.25

64 days. Also called Burger's Green Pod. Very high quality white seeded sort of German origin, pods 6-7 inches long, flat, very tender, fleshy and stringless, foliage distinctively dark green and much crumpled.

#### Wax Kentucky Wonder.

Pkt. 25c; lb. 60c; 5 lbs. \$3.00

70 days. The pods are yellow or wax; 7-8 inches long, flat, decidedly crease-backed, very fleshy, brittle but stringy, attractive, quality fair.

### LIMA BEANS.

Limas are easily grown in any rich well drained loam; pole sorts require stakes or supports but the bush sorts can be grown same as the regular bush beans, except giving them a little more room in the row. Be sure seed is in moist soil when planting; when possible you can plant the seed with the eye down, for better germination. Plant only when the soil is warm and after all danger of frost is passed. The beans are used in the green state or they can be left for dry beans. The seed being very large, it requires from 2-3 times more seed per given space than for the regular bush beans. 2 bushels per acre.

#### Fordhook Bush.

Pkt. 25c; lb. 50c; 5 lbs. \$2.30

75 days. Exceedingly popular; especially as a market sort; best quality, productive, pods 5 inches long, 4-5 beans per pod, good flavor.

#### Improved Bush.

Pkt. 25c; lb. 50c; 5 lbs. \$2.25

75 days. An improved type of the old Burpee Lima, with larger beans and pods, containing 6 thicker beans per pod. A popular garden variety.

#### Henderson Bush.

Pkt. 25c; lb. 50c; 5 lbs. \$2.20

66 days. A vigorous, hardy, very early, small seeded type much in favor as a conner; good quality and a favorite in the North on account of its earliness. The seeds are about half the size of the other Limas.

#### King of the Garden.

Pkt. 25c; lb. 50c; 5 lbs. \$2.25

88 days. The best pole Lima, an improved strain of the Large White; 3-4 large beans per pod, vigorous and productive. Requires supports for best growth.

### DRY SHELL BEANS.

These are grown the same as the dwarf bush snap beans but their value is only in their being of use as dry winter beans. Harvest when the pods have dried, cure for a spell and then thresh the seed from the pods and store for winter use.

#### Michilite Navy Bean.

Pkt. 25c; lb. 50c; 5 lbs. \$2.00

90 days. The best of the navy bean varieties, early, productive and of the best quality. Bushel seed per acre required.

#### Red Kidney.

Pkt. 25c; lb. 50c; 5 lbs. \$2.25

95 days. Light red, type. Seed is nearly as large as a lima. They make the best of dry winter beans.

### BEETS, TABLE.

Table Beets can be sown as early in the spring as the ground can be worked and other sowings can be made at intervals into July, especially if wanted for beet greens and very young beets. Sow seed in rows, 18 inches apart, covering the seed about ½ inch deep. Do not sow too thickly. When the seedlings are up, thin from 1-4 inches apart, depending upon whether you want them for greens, young roots or winter roots. For winter use plant so as to mature just before frost for best quality roots. Oz. plants 50 ft.; 5 lbs. per acre.

#### Early Blood Turnip.

Pkt. 5c; oz. 20c; lb. \$1.50

56 days. Excellent for both home or market gardening and can be used for

greens or small bunching beets; it is productive and hardy and does well under adverse conditions.

**Detroit Dark Red.** ..... Pkt. 5c; oz. 20c; lb. \$1.60

68 days. One of the very best for home gardening or canning. Roots globe shaped, dark red, small tops and especially free from zones.

**Crosby's Egyptian.** ..... Pkt. 5c; oz. 20c; lb. \$1.60

55 days. Usually grown for the early crop, roots flattened globe-shaped, fairly dark red, small tops. Popular sort.

**Early Wonder.** ..... Pkt. 5c; oz. 20c; lb. \$1.60

55 days. Green top strain. Best bright green topped winter shipping beet; is preferred above all other types for the winter shipping beet grown in the South.

**Early Wonder Tall Top Strain.** ..... Pkt. 5c; oz. 25c; lb. \$1.80; 5 lbs. \$7.50

55 days. A very popular variety producing uniform roots and large bright green tops, especially desirable for those producing button beets and greens for the early spring market.

**CHARD, SWISS.**

Grow Chards same as you do Beets. The tops can be cut off when tender and new growth will come on if the soil is rich and growing conditions favorable. It also makes excellent feed for young poultry or baby calves during the hot summer months.

**Fordhook Giant.** ..... Pkt. 5c; oz. 15c; lb. \$1.20

Leaves dark green, crumpled, savoy-leaved; with broad white mid-rib.

**BRUSSEL SPROUTS.**

**Long Island Improved.** ..... Pkt. 10c; oz. 50c; lb. \$4.30

**ROCCOLI.**

Sow seed indoors or in cold frame same as for early cabbage setting them out in the garden about May 1st. Set plants about 18 inches apart in 2½ foot rows. They do best in the cooler parts of the season. Oz. seed produces 2000 plants.

**ITALIAN Green Sprouting.** ..... Pkt. 10c; oz. 35c; lb. \$3.10

55-60 days, from transplanted plants to first cutting. The heads are much like Cauliflower and it is used much in the same way. It is excellent frozen. It should be in every garden and is much easier grown than Cauliflower. Grow same as you would late Cabbage.

**CABBAGE—Earliest Heading.**

## VEGETABLE SEEDS

### White Wonder.

70 days. A blocky white skinned variety, that makes an attractive slicing Cucumber. It is generally grown all over the country but in limited amounts; strictly a home garden sort.

### DILL.

#### Long Island Mammoth.

Pkt. 10c; oz. 20c; lb. \$2.00  
(Anethum graveolens). Annual herb with feathery foliage, growing 4-6 ft. tall producing an abundance of aromatic seed which are used in pickles, preserves, soups and sauces.

### ENDIVE.

Sow during March or April in hot bed or cold frame covering seed about 1/2 inch, transplanting in the field in April or May, spacing plants 12 inches apart; for late crop sow in June or July. Oz. produces 3000 plants. Plants can be tied up when full grown so as to blanch the inner leaves, this requires 3-4 weeks.

#### Green Curled.

Pkt. 10c; oz. 20c; lb. \$1.40  
Best for general use; season 95 days. It can be easily blanched.

### EGG PLANT.

Sow seed in hot bed or greenhouse in March or April and transplant when an inch high. Transplant to the open when weather is warm; they do not stand frost. Space about 3 ft. each way; allow 8-10 weeks for the production of plants before setting out time. Oz. for 1000 plants.

#### Black Beauty.

Pkt. 10c; oz. 80c; lb. \$6.50  
80 days from setting out. Beautiful rich purple black fruits of the best quality. This is probably the best all around variety; is a vigorous grower.

### KALE.

Kale or Borecole for early use should be sown early in the spring, for late fall or winter use, sow the seed in June and transplant in July to rows 2 ft. apart and plants 2 ft. apart. Seed should be sown 1/2 inch deep; cultivate same as Cabbage. Oz. produces 2000 plants or 150 ft. of drill.

#### Dwarf Scotch Curled.

Pkt. 5c; oz. 20c; lb. \$2.00  
60 days. Leaves are very large and deeply curled and fringed and of desirable rich bluish-green color; plants dwarf, even growth with leaves hugging the ground, which will not be broken off by heavy wet snows.

#### Siberian.

65 days. Green, curly leaves, tender and of delicate flavor; is especially good for late fall and winter growth.

### LETTUCE. Leaf or Loosehead.

Lettuce should be sown early in the spring as soon as the soil is ready to work and followed every 2 weeks by other sowings so as to keep a continuous crop of fresh, tender leaves. For fall crop, sow in July. The heading types can be started indoors or in cold frame about February, transplanting the seedlings to the open ground as soon as possible. In fact you will have better results with head lettuce, even when started outdoors, by transplanting them. Seed should not be sown over 1/2 inch deep and a few radish with the seed will mark the rows quickly so that cultivating can be made if the ground becomes hard before Lettuce is up. Pkt. will plant 50 ft. or more; oz. 500 ft.

#### Black Seeded Simpson.

Pkt. 5c; oz. 20c; lb. \$1.65  
45 days. The most popular loose leaf Lettuce, producing a compact mass of crumpled light yellowish green leaves of the very best quality.

#### Early Curled Simpson.

Pkt. 5c; oz. 20c; lb. \$1.80  
45 days. White seeded; forms close masses of light green crumpled leaves, brittle and of best flavor; and a good variety for forcing under glass.

#### Prizewinner.

Pkt. 5c; oz. 20c; lb. \$1.85  
45 days. A very high class loose leaf Lettuce with growth similar to B. S. Simpson but with a reddish tinge to all the leaves, giving it an attractive appearance.

#### Grand Rapids.

Pkt. 5c; oz. 20c; lb. \$1.80  
42 days. White seeded; quick maturing, large loose heads, upright growth and showy; leaves bright green crimped at edges. Best quality.

### LETTUCE. Heading Varieties.

#### Bibb.

Pkt. 5c; oz. 30c; lb. \$2.75  
78 days. A very popular variety forming a solid heart of rich yellowish green; this is good for cool seasons only. It is of very good quality.

### MANGOLS.

Mangolds are the most important root crop for stock feeding, forming the very best food for cattle, hogs or poultry and at so little cost. 50 tons can be grown per acre and the feed value is near to that of grain with the added value of a succulent food during the winter. Sow them early in the spring, in rows 2-2 1/2 feet apart, thinning the plants at least 6 inches apart as soon as they are 2 inches high. 6 lbs. of seed required per acre.

#### Mammoth Long Red.

Pkt. 5c; oz. 20c; lb. \$1.25  
110 days. The most popular variety, easily grown and harvested; the roots are red, flesh white, smooth and grows well out of the ground making it easy to pull.

### MUSKMELON.

Muskmelons grow best in a light soil, planting them so that the seedlings will not be touched by any frost; plant either in rows 6 ft. apart with the seeds every foot, or they can be planted in hills 6 ft. apart each way so as to be able to cultivate both ways. Thin plants in the row to 2 plants per hill or in the hill system, to 4-5 plants per hill. Plant seeds 1/2 inch deep. Oz. plants 60 hills; 2-3 lbs. per acre.

#### Banana.

Pkt. 10c; oz. 25c; lb. \$2.50  
98 days. Fruits 18 inches long by 4 inches in diameter, smooth gray-green to lemon color with the flesh salmon.

#### Golden Champaian.

Pkt. 10c; oz. 30c; lb. \$2.50  
82 days. Also known as Lake Champaian, the earliest melon, almost round, 6 inches across, 5 1/2 deep, moderately netted, deeply ribbed; flesh sweet, golden orange; productive and on account of its earliness is especially good for early market and home gardens.

#### Hole's Best. No. 36.

Pkt. 10c; oz. 25c; lb. \$2.10  
86 days. Early salmon flesh melon, well ribbed and netted skin; flavor especially sweet and with a somewhat musky tang. Fruits almost round and especially right for crating.

#### Hearts of Gold.

Pkt. 10c; oz. 30c; lb. \$2.10  
80 days. Nearly round, 4-5 inches thru, deep orange flesh, closely netted and of the very best flavor.

#### Honey Rock.

Pkt. 10c; oz. 30c; lb. \$2.10  
85 days. Skin gray-green covered with sparse coarse netting; flesh orange salmon, green rind beneath the skin. Best market melon and of high quality, productive.

#### New Yorker.

Pkt. 10c; oz. 30c; lb. \$2.25  
90 days. This variety is especially a valuable variety for roadside market; rind is extremely strong or hard covered with a heavy rope-like netting, which stands out and more prominent than in any other variety. Skin is slate gray until maturity, then turning to lemon yellow; the thick brilliant flesh is very attractive with sugar content above, even, the Hales Best types, with a soft delicious texture and highest edible qualities.

#### Rockford No. 45.

Pkt. 10c; oz. 30c; lb. \$2.10  
90 days. Almost round, with heavy netting, flesh green and of a distinctive flavor.

#### Tip Top.

Pkt. 10c; oz. 30c; lb. \$2.10  
95 days. 7 inches long and 6 1/2 thru, deeply ribbed with thick deep salmon flesh of spicy flavor; skin smooth, slate turning to yellowish when ripe.

### MUSTARD GREENS.

Mustard can be sown early in the spring with successive sowings every 2-3 weeks during the cool parts of the season. Sow thinly in rows 1 1/2 ft. apart, covering seeds about 1/4 inch. Oz. will plant 100 ft.

#### Florida Broadleaf.

Pkt. 5c; oz. 15c; lb. \$1.20  
43 days. Large, upright, leaves very large and thick; bright green, smooth, pale green mid-rib. Desirable because of the ease in preparing the smooth leaves.

#### Fordhook Fancy.

Pkt. 5c; oz. 15c; lb. \$1.20  
40 days. Dark green, deeply curled and fringed; flavor mild and especially good for greens or salads; stands a long time before bolting to seed.

#### Southern Giant Curled.

Pkt. 5c; oz. 15c; lb. \$1.20  
35 days. Very popular curled leaf mustard for spring or fall planting; leaves are bright green, pleasing mild flavor. Leaves large, fringed and curled at margins.

#### Tendergreen.

Pkt. 5c; oz. 15c; lb. \$1.20  
28 days. A rapid growing mustard having large broad thick dark green leaves, which, when cooked has a mild spinach flavor; a heavy trooper and resistant to heat and cold.

### OKRA.

Okra is a valuable vegetable, used when the pods are young; it is also fine for cutting up in soups, stews, catsup and other relishes. Sow when the soil is warmed up as they will not stand any frost, in rows 2-2 1/2 inches apart, thinning to 6-8 inches, cover seed about 1/2 inch.

#### Perkin's Mammoth.

Pkt. 5c; oz. 15c; lb. \$85c  
68 days. Dark green, pods fleshy and tender, tapered and ribbed, 4 1/2 ft. tall.

### ONION.

Winter Onions are sown early in the spring, in rows about 18 in. apart and when seedlings are 3-4 in. tall they should be thinned to 2-4 inches apart in the row. The Southport Globes and Prizewinner can be started indoors in February and transplanted to the open ground as soon as soil is in condition, when bulbs of immense size can be grown. It is a good point to add a few radish seed when planting so that the row will be marked quickly for cultivation and before the onions have germinated; in a heavy wet spell, it may save your crop. Oz. plants 100 ft. 5-6 lbs. required per acre.

#### Southport Red Globe.

Pkt. 10c; oz. 55c; lb. \$4.60  
110 days. Bulbs globe shaped with small neck, deep red skin and white flesh, good keeper.

#### Southport White Globe.

Pkt. 10c; oz. 60c; lb. \$5.10  
110 days. Medium large bulbs, skin thin but reasonably good keeper. Skin

is white, bulb globe type. The white sorts are hotter than the yellows.

**Southport Yellow Globe** ..... Pkt. 10c; oz. 50c; lb. \$4.20

110 days. Bulbs globe shaped, yellow skin and the best long keeper. It is very popular both for market and the home garden.

### PARSLEY.

Every garden should have Parsley; does well in both sun or shade and very easily grown; used for greens or can be dried and kept in an air tight bottle for use in soups during the winter. It is high in food value. Plant early in April in rows 1 ft. apart, cover seed 1/4 in. Pkt. plants 25 ft.; oz. 300 ft.

**Champion Moss Curled** ..... Pkt. 5c; oz. 15c; lb. \$1.30

70 days. Compact dark green plant, exceedingly fine cut and dense.

### PARSNIP.

Sow seed very early in the spring in rows 2-3 ft. apart, covering 1/2 inch deep, thin seedlings to 3-5 inches apart. Roots may be stored during the winter or left out in the ground for early digging in the spring. A frost improves the flavor. Parsnips make a delicious vegetable. Oz. will sow 100 ft.

**Hollow Crown** ..... Pkt. 5c; oz. 20c; lb. \$2.20

95 days. Roots 10-12 inches long, 2 1/2-3 across at top, hollow crowned and tapering; this is the most popular variety both for market or home gardening.

### PEPPERS.

Sow seed of Peppers indoors, allowing 8-10 weeks to produce plants suitable to set out, when the weather becomes warm as they do not stand any frost. Space plants 18-24 in. in rows, rows 2-3 ft. apart. They do best in a moderately rich light soil. Maturity days under each variety are from transplanting to fruiting, add 8-10 weeks from the planting of the seed.

Peppers are all green when first formed, later turning red when ripe; they should be picked often when green for a better yield. The Sweet Peppers are used for slicing, salads or for stuffing. The hot kinds are used for sauces, flavoring and pickling, either fresh or dried. Pkt. will produce 100 plants; oz. 1500.

**Bull Nose** ..... Pkt. 10c; oz. 70c; lb. \$6.00

70 days. Also called Bell, medium hot variety, fruits 3 by 2 1/2 inches, blunt, largely 4-lobed, deep green changing to scarlet.

**California Wonder** ..... Pkt. 10c; oz. 55c; lb. \$9.00

75 days. Sweet, plant vigorous, fruits 4 1/2 by 3 1/2 inches, 4-lobed upright, deep green changing to scarlet. Very popular thick fleshed variety.

**Pimento** ..... Pkt. 10c; oz. 70c; lb. \$6.00

73 days. Sweet, erect plant, prolific, fruits 3 1/2 by 2 1/2 inches, top shaped, dark green turning to bright crimson; a very popular sweet variety and grown in large quantities.

**Ruby King** ..... Pkt. 10c; oz. 85c; lb. \$7.50

68 days. Sweet, erect, prolific, fruits 5 by 3 inches, 3-lobed tapering, dark green turning to deep red. A fine variety.

**Short Red Chili** ..... Pkt. 10c; oz. 70c; lb. \$5.50

82 days. Plant low and spreading, productive, fruits erect, conical and very hot; color light green changing to bright red; used for making pepper sauce.

### PUMPKINS.

Plant Pumpkins at corn planting time, so that they will not be touched by any frost. Plant in hills 6-8 ft. each way if you wish to cultivate both ways or they can be planted in 8 ft. rows, growing 2-3 plants every 3-4 feet. Cover seed 1 inch. Pkt. will plant about 5 hills, oz. 25 hills.

**Connecticut Field** ..... Pkt. 5c; oz. 15c; lb. \$1.25

110 days. Fruits 12 by 14 inches, hard, smooth, ribbed, deep orange, flesh yellow. A very popular variety especially in the corn belt and a large producer.

**Green Striped Cushaw** ..... Pkt. 5c; oz. 15c; lb. \$1.25

110 days. Fruits 20 inches long, 10 thru large part with a tapering crooked neck ending in a ball. Color light green with white stripes intermingled. This is very popular in the Ohio Valley and southwards, a large yielder.

**Large Cheese** ..... Pkt. 5c; oz. 15c; lb. \$1.25

110 days. Fruits are 6 by 12 inches, flat, ribbed, cream color, flesh deep orange. This is a popular canning and pie variety.

**Small Sugar or Pie** ..... Pkt. 5c; oz. 20c; lb. \$1.45

110 days. Fruits are 8 by 10 inches, skin hard, smooth, ribbed, thick flesh, deep yellow. This is the best all around variety and especially for the home garden where they are wanted for pies.

## VEGETABLE SEEDS

**Green Warted Hubbard** ..... Pkt. 10c; oz. 25c; lb. \$1.85  
110 days. Fruits 13 x 9 inches, pointed at each end, dark green shell, flesh orange and the very best of keepers.

**TOMATOES—Red Fruited.**

Tomatoes can be started in the hot-bed or indoors in shallow box, allowing 6-8 weeks to produce plants for setting out, which should be early in June, after danger from frost is passed. Transplant the seedlings when they are 2 inches high, spacing them 2 inches in flat or they can be potted into 3 inch pots. In the corn belt seed can be planted in cold frames or directly in the out-door seed bed, as early as April. Pkt. will produce 200 plants; oz. 2000. Maturity days given are field set plants to first ripe fruits; add 3-8 weeks from seed.

**Beefsteak** ..... Pkt. 10c; oz. 85c; lb. \$7.50

88 days. Known also as Crimson Cushion, the largest red fruited tomato, scarlet-red skin, sub-acid flavor, and a favorite with home gardeners.

**Bonny Best** ..... Pkt. 5c; oz. 60c; lb. \$5.20

66 days. Most popular second early sort for both home gardening or for market and canning; fruits scarlet, flattened globe shape, and a fine northern section variety.

**Chalks Early Jewell** ..... Pkt. 10c; oz. 80c; lb. \$6.00

74 days. Fruits red, medium large, semi-globe shaped, similar to Bonny Best. 66 days. Open spreading plant, fruits flattened, medium size, red and the first general purpose tomato.

**Earliana** ..... Pkt. 10c; oz. 80c; lb. \$7.50

82 days. Large robust plant, red fruits, large and solid, weighing 7-8 oz. Is very resistant to heat and thus popular in the corn belt.

**Greater Baltimore** ..... Pkt. 5c; oz. 50c; lb. \$5.50

76 days. Vigorous, heavy foliage, resistant to blight fruit red, medium large, semi-globe shape, solid, the most widely used main crop tomato.

**Marglobe** ..... Pkt. 5c; oz. 60c; lb. \$5.50

81 days. A favorite late main crop tomato; fruits deep flattened, weighing 6-7 oz. It is an old favorite for the home garden and for canning, yielding large crops.

**New Stone** ..... Pkt. 5c; oz. 60c; lb. \$5.50

88 days. Large spreading plant, fruits pink, large flat with small seed cells. A favorite slicing sort for the home garden.

**Prichard** ..... Pkt. 10c; oz. 65c; lb. \$5.70

76 days. Scarlet Topper. Self topping, resistant to fusarium and nail head; fruits red with thick walls, semi-globe. Popular.

**Rutgers** ..... Pkt. 5c; oz. 55c; lb. \$4.79

86 days. Plant large with thick stems; fruits red, globe shaped, excellent for canning, fruits ripen from the interior outwards.

**Table Talk** ..... Pkt. 5c; oz. 75c; lb. \$6.70

75 days. Large and globe shaped, 7-8 oz., bright scarlet and attractive; it is a very good variety for slicing, solid and good yielder.

**Oxheart** ..... Pkt. 10c; oz. \$1.00; lb. \$10.00

99 days. Fruit heart-shaped, thick flesh, meaty, pink color and with few seeds; favorite for table use.

**TOMATOES—Yellow, Orange.**

**Jubilee** ..... Pkt. 10c; oz. 90c; lb. \$8.00

90 days. Deep orange flesh, thick and mild non-acid flavor. It is a very excellent variety.

**Golden Oxheart** ..... Pkt. 10c; oz. 90c; lb. \$12.00

88 days. Fruits egg-shaped, orange in color, thick flesh and of the very best quality. This is high in vitamin C.

**TOMATOES—Small Fruited.**

**Yellow Plum** ..... Pkt. 10c; oz. 75c; lb. \$6.50

70 days. Plants dwarf but with an enormous amount of fruits about 1 1/2 inches through; used in preserves.

**TURNIPS.**

Turnips are very easily grown, especially when most of their growth is made in the cool part of the fall, frost even improving their flavor. Saw the Milan and foliage types in the spring as soon as the soil is in shape in rows 12-15 inches apart, thinning seedlings to 3-6 inches apart and make succession planting every two weeks. For the fall and winter crop, saw in rows or broadcast, 3 months before your first hard frost. The foliage type, Milan, Seven Tops, makes excellent turnip greens and is widely used. Pkt. will plant about 50 ft.; oz. 25 ft.

**Purple Top Strap Leaf** ..... Pkt. 5c; oz. 15c; lb. 80c

46 days. White flesh, tops medium small, upright, roots flat with purple top and white below; most popular flat purple top turnip.

**Purple Top White Globe** ..... Pkt. 5c; oz. 15c; lb. 80c

57 days. This is the most popular turnip and probably planted 90% of the time. Flesh white, tops dark green; roots globe-shaped purple at top and white below. The best fall and winter variety.

**Seven Top** ..... Pkt. 5c; oz. 10c; lb. 60c

Hardy variety grown especially for its tops, for greens. Grown mainly in the South, roots not usable.

**WATERMELON.**

Watermelons should be planted after frost is over, a little later than corn planting time. Plant 6-8 seeds per hill and the hills 6-8 ft. apart each way if you wish to cultivate them both ways, or they can be planted in 8 ft. rows making the hills a little closer. Cover seeds 1/2 inch and after the seedlings are well started thin to 2-3 per hill. Rich, rather sandy soil is the ideal Watermelon patch. Pkt. will plant 6 hills; oz. 30 hills; 2 lbs. per acre. First figure in size is length, 2nd distance through.

**Cole's Early** ..... Pkt. 5c; oz. 15c; lb. \$1.35

80 days. Also called Harris Early. 18 inches long by 8 1/2 through, flesh red, seeds black and a top rate home garden variety, especially for North.

**Dixie Queen** ..... Pkt. 10c; oz. 25c; lb. \$2.25

85 days. 15 by 12 1/2 inches, skin light green alternately striped with dark green, thin rind, tough, flesh dark pink with a few white seeds; good shipper.

**Early Kansan** ..... Pkt. 10c; oz. 25c; lb. \$2.25

85 days. Also called Russian Red, Kansas Queen. 15 by 12 inches, dark green with alternate stripes of lighter shade, flesh red with brown seeds. A favorite in the South. Fruits average 30-35 lbs. each.

**Georgia Rattlesnake** ..... Pkt. 5c; oz. 15c; lb. \$1.35

92 days. 21 x 9 inches, light green with dark stripes, flesh pink, seed white. A favorite market melon for southern growing; fine shipper.

**Ice Box** ..... Pkt. 10c; oz. 25c; lb. \$2.25

78 days. Nearly round fruits 6 inches through, dark skin with faint stripings with very thin rind and they ripen very quickly. Flesh is especially sweet, seeds black. They are especially valuable in the small garden and for use where they can be placed in the refrigerator similar to Muskmelons. Try them, they are all right.

**Irish Gray** ..... Pkt. 5c; oz. 20c; lb. \$1.45

90 days. 22 x 11 inches, skin tough, light gray-green, flesh dark pink, seeds white. A favorite for southern growing.

**Imp. Kleckley Sweet** ..... Pkt. 5c; oz. 20c; lb. \$1.45

88 days. Also known as Wondermelon. 24 by 12 inches, weighing as much as 40 lbs. Skin attractive bluish green, flesh dark red, seeds white with some brown. It is tops for the home garden as well as for the market.

**Klondyke No. 7 B.S.** ..... Pkt. 5c; oz. 20c; lb. \$1.60

90 days. 14 by 10 inches, dark skin, flesh thick, blood red, seeds small and black. A resistant strain.

**Peerless or Ice Cream** ..... Pkt. 5c; oz. 15c; lb. \$1.45

85 days. A very early medium sized melon, short oblong form. Rind light green, thin, mottled and finely veined with darker shade, flesh bright scarlet and very sweet; seeds white. One of the best varieties for the North.

**Stone Mountain** ..... Pkt. 5c; oz. 20c; lb. \$1.45

88 days. 17 by 14 inches, dark green skin, flesh bright crimson, seeds white tipped with black. Very prolific and one of the best shipping varieties.

**Tom Watson** ..... Pkt. 5c; oz. 20c; lb. \$1.45

92 days. 22 by 12 inches, rind is dark green, tough, seed brown with some mottling; grows to a very large size; flesh red and of good quality and is one of the very best shipping varieties.

**Fordhook** ..... Pkt. 10c; oz. 30c; lb. \$2.10

95 days. Orange flesh, large oval fruits weighing 4-5 lbs. each; flesh is thick and sweet; excellent home garden variety.

Where Oz. prices are 50c or more, 1/2 oz. at same rate; where \$1.00 or more 1/4 and 1/2 oz. at same rate.

**SWEET CORN.**

Sweet Corn for green ears can be planted as soon as the soil is warm and frost danger is passed and succession plantings can follow every week for 10 days for a month at least. Plant in hills about 3 ft. apart, 4-5 seed per hill; 3 good plants per hill is about right; or they can be drilled in rows, with one stalk every foot. Three or four varieties with different maturing dates can be planted at the same time for a succession of green ears. Try to plant in blocks of 4-5 rows, rather than in one long row so as to better the pollination and thus have well filled ears. 1/2 will plant 200 hills; 8-10 lbs. per acre.

**Black Mexican** ..... Pkt. 25c; lb. 45c; 5 lbs. \$2.00

86 days. Ears 7 1/2 in. long, 8 rows of pearly white kernels in the milky stage which turn to purplish black when ripe; it is one of the sweetest and remains sweet and tender for a long time; stalks 6 ft. high.

**Country Gentleman** ..... Pkt. 25c; 1. 45c; 5 lbs. \$2.00

92 days. Known also as Shoe Pig; a productive mid-season sweet corn and of very high quality; ears 7 1/2 in. long, filled with irregularly

**Early Evergreen** ..... Pkt. 25c; lb. 45c; 5 lbs. \$2.00

85 days. An early white sweet corn similar to Stowell Evergreen but 2 weeks earlier; excellent quality, and should be especially planted for canning in sections where the season is short. Ears 7 1/2 in. long, 14-20 rows, stalk 7 ft. tall.

**Golden Bantam 8-rowed** ..... Pkt. 25c; lb. 45c; 5 lbs. \$2.00

80 days. The most popular Sweet Corn, plants 5-7 ft. tall, ears 5 1/2-6 1/2 inches long, 8 rows, golden kernels of the very best quality. Our opinion is that it is a better Sweet Corn than any other.

**Golden Sunshine** ..... Pkt. 25c; lb. 45c; 5 lbs. \$2.00  
74 days. This is an especially good variety for sections with short summers and rather cool weather; ears 7 in. long, 10-12 rows, stalks 5 ft. tall. Usually two ears per stalk; a fine home or market garden variety.

**Howling Mob** ..... Pkt. 25c; lb. 45c; 5 lbs. \$2.00  
85 days. A vigorous and productive early midseason sweet corn; stalks 5-6 ft. tall, ears 7-9 in. long, closely set with 12-18 rows of white kernels in straight rows, giving it an attractive appearance. Fine quality.

**Stowell's Evergreen** ..... Pkt. 25c; lb. 45c; 5 lbs. \$2.00  
95 days. The most popular late white Sweet Corn, both for canning and for the home garden; ears 7 1/2-8 inches long, 16-20 rows of deep, meaty kernels of the very best quality; 7-8 ft. tall; used very much for canning.

**Adams Early** ..... Pkt. 25c; lb. 40c; 5 lbs. \$1.80  
75 days. White dent roasting corn, used mainly south of the Ohio River and throughout the South. Hardy, ears 7-8 in. long, 12-14 rows, stalk 6 1/2 ft. tall.

**Trucker's Favorite** ..... Pkt. 25c; lb. 40c; 5 lbs. \$1.85  
75 days. Not a sugar corn but a white roasting ear type, very much planted in the South. Ears 9-10 in. long, seed white and dent, stalk 7-8 ft. tall.

**Hickory King** ..... Pkt. 25c; lb. 35c; 5 lbs. \$1.80  
100 days. This is strictly a southern roasting ear corn, late large yielder, ears very large but 8-rowed. It is very extensively planted in the South.

**HYBRID SWEET CORN.**

The hybrid corns have a great many claims and are very popular all over the country; they seem to be more uniform, ripen more evenly and yield good. We believe, though, that the regular varieties in most cases would be equally as good if as much attention was paid to their selection and growing.

**Golden Cross Bantam** ..... Pkt. 25c; lb. 75c; 5 lbs. \$3.30  
85 days. Most widely used of the hybrids, for canning, market, freezing or home garden. Ears 7 1/2-8 1/2 in. long, 10-14 rows, stalk 6-7 ft. tall. Extra good quality.

**Hybrid Stowell Evergreen** ..... Pkt. 25c; lb. 75c; 5 lbs. \$3.50  
90 days. Strong growing, white variety and a favorite for main crop canning, home or market, also freezing. Ears 7 1/2-8 1/2 in. long, 14-18 rows, stalk 8-10 ft.

**Hybrid Country Gentleman** ..... Pkt. 25c; lb. 75c; 5 lbs. \$3.50  
99 days. One of the best late white varieties for canning, especially where a fine kernel is wanted. Ears 8 in. long, 14-16 rows, stalk 7-9 ft. tall.

**POP CORN.**

All Pop Corn can be planted closer than the regular corns, both in the row and between the rows. About 1/3 less seed is also required, due to their size. Children like to grow Pop Corn and where a small patch is planted in the garden, use a rather square plot, rather than planting in a long single row, so that pollination will be better and perfect ears thus formed.

**Japanese Hulless** ..... Pkt. 25c; lb. 50c; 5 lbs. \$2.00  
105 days. A very popular white rice variety, popping a pure white corn. Ears 2 1/2-4 1/2 in. long, well filled with deep narrow kernels, stalks 6-7 ft. tall.

**South American or TNT** ..... Pkt. 25c; lb. 50c; 5 lbs. \$2.00  
120 days. The large yellow kernel Pop Corn, popping creamy-white. A popular yellow variety. Ears 6-8 in. long, stalks 6-7 ft. tall.

**GARDEN PEAS.**

There is one important point in growing peas and that is they should be planted as early in the spring as possible. The wrinkled varieties are usually grown, but for the very earliest planting where danger of freezing may be had, the smooth seed varieties will stand better, where the wrinkled sorts will rot in the ground. The packets offered hold about a half pound.

**Early Alaska** ..... Pkt. 25c; lb. 40c; 5 lbs. \$1.90  
55 days. The most popular earliest smooth seeded pea, of special value where summers are short. It is excellent for canning or for the early market. Grows 2 1/2 ft. tall, and ripens very evenly. Pods 2 1/4 in. long.

## • In The Mail

(Continued from Page 19)

in pots or boxes and covered with snow to germinate later? I have never found a satisfactory article on Autumn planting or winter planting of difficult seeds and would appreciate instructions." This is quite a question and a very important one too and shows that Mr. Selders is up on his flower growing. We want to attempt to answer it in this column on account of space, but will give this over to an article for next issue. Some plants, such as Larkspur, do best when planted early, even on the snow, as they are benefited by the freezing, as is also the perennial species, the Delphiniums, but what we usually mean by April planting is when the soil is dry enough and in condition so that it at least can be raked and the seed sown early enough so that they are benefited by the cold as well as being in position to germinate at the first opportunity. Perennials, the hardy ones or those which one is trying to get to flower the first year, are most all in this class, as well as all the real hardy annuals and biennials, with few exceptions.

James H. H. Bodge, R. No. 3, Brunswick, Maine, writes about the National Hybridizers Society. Anyone wishing to join should write him the annual dues are \$1.00.

Quite a long complimentary letter was received from Nora Dowell of Webb City, Mo., saying "I have read your catalog over and over and must say I have more enjoyment in becoming acquainted with these plants and the pronunciation makes it more interesting. The article by Frank Rose was most interesting and the Penstemon articles I so much enjoyed." It is a pleasure on our part to be able to give some help in the proper growing of the many different flower seeds we offer and the fewer the disappointments are the better, but when you do have a failure, and the very best of growers have them, it should be of some value, even to a lesson learned. Thanks very much for your letter Mrs. Dowell.

We are sorry not to be able to list this month any bulbs. Outside of taking care of the winter orders on Lillies, we will not list them this spring, but you can depend upon a full list of fall bulbs in the May or June issue.

## FOR NEXT MONTH

### Complete Listing of

### IRIS

ALL KINDS

### DAFFODILS

### NARCISSUS

### LILIES

Complete List

## TIME TO ORDER WESTERN DORMANTS

As a further service to our customers wanting the more difficult and hard to find native western plants, we offer a special list of plants, as well as the opportunity to ask for others not listed, that can be collected and shipped AS FOUND. Mr. Rose, our collector, is an expert on this sort of collecting and all orders will be properly handled. Please keep in mind that his "nursery" covers 3-4 states and that he cannot skip out in the morning and dig up a plant at will—sometimes, he is not able to even find it.

By the end of June, in Montana, Nature has already begun seeding for next season but has not yet uncovered the plants in the higher parts of her Montana garden. Obviously she doesn't do everything at once and neither can we. It is a pretty good plan to follow Nature's methods but not so good to be circumscribed by them. She never learned for example to send mail orders or to time her automatic sprinklers to her plants needs. We are free to experiment with a better chance to succeed.

Starting plants from seed gives abundant plants at little expense and is generally recommended. It may take more time than one cares to spend or seed of the desired plant may not be available. In these cases transplanting collected plants is indicated.

In our opinion there are two best times to move plants. Before much growth starts in spring or after it stops in summer or fall. Some plants are quite exacting in their demands but most give considerable leeway. Iris for example is best moved before growth starts in early spring or from August on after growth for the season is finished. Iris has, however, been dug in bloom and hauled to the dump only to grow in its new location. Parry's primula, once common throughout subalpine Rocky mountains is becoming rare and usually promptly dies for most gardeners. The Iris is more adaptable than the primrose and less likely to succumb to the handicaps of palatability and lack of human understanding.

I don't know how to make Parry's primula happy in your garden but have some knowledge of westerns where they grow. I have been asked to write a column on them for this publication. Such knowledge as I have of western plants in their native haunts I am most willing to share. Of their adaptability to eastern gardens however I have only second hand information.

Some plants of the plain and foothills will go dormant and disappear in June or July. If you want any now is not too soon to make your wants known. It would be wasteful to provide for a plant that will not develop.

Our earliest Fontana flower is a buttercup. That sounds common enough for buttercups are everywhere; but *Ranunculus glaberrimus* is an outstanding buttercup. Its large, waxy-yellow, fragrant flowers are out with the first warm days. They have been just ready to come since fall under their neutral or slightly acid sandy loam. This buttercup is also our earliest plant to seed and as the seed ripen irregularly and close to the ground they usually get away from even early orders. Dormant roots are available however and may be planted anytime from June to October. If suited the plants will reseed.

*Lewisia rediviva*, well known as a rock garden plant, goes dormant in July. After that none can be found. The shiny, black, lens-shaped seeds are available. Seed is collected the last week of June or the first week of July here depending upon the season. They are long viable and freshness is not so important as favorable growing conditions from germination until its three year old maturity. For a plant whose dormant root will live for a year out of the ground moisture would seem unimportant. That doesn't seem to be true. Moisture can safely be disregarded only with bog plants. Of the millions of tiny bitterroots now showing on the area where I know it best, only a relative few will mature. The plant seems to do equally well on pure clay and a nearly pure gravel. The high infant mortality I attribute to inter wet on the clay and summer drought on the gravel. After the roots mature they want a quickly drying crown with some moisture at the roots from early fall till the seed mature but must not have the air excluded from the soil in winter. Nature sows her seed abundantly and wide in July, covers them in August and germinates them in September. My geology professor used to say, "You have all the time you want in geology." Nature seems to add, "Why hurry."

Among blue flowered dormants, are the dwarf *Mertensia* and *Delphinium*. My choice of the *Mertensia* is *M. longiflora*. No seed, sorry. The roots are tiny and must be collected in June before the sparse leaves disappear. Roots will keep over winter in a paper bag and may be planted either in fall or early spring. Other American bluebells the less compacted roots become brittle upon drying and must be handled with more care. The intermediate roots of the dwarf larkspur may be handled much the same of *M. longiflora* although I prefer to cover them with humus and keep just moist enough to avoid brittleness. They produce a royal flower cluster in May on light soil and are quite adaptable.

Sand lily, *Leucocrinum montanum*, and queen cups, *Clinanthus uniflora*, are of purest white. They grow far apart. Sand lily is of the dry open places to go at its season, but nothing is easier to handle. The queen cup is of the moist woodlands, with an underground strawberry runner for roots, putting up three large leaves at intervals with white lily-like flowers on the ground in spring followed in the fall by a single porcelain blue berry too heavy for its slender stem. The berries must be hunted for and picked singly so seed are not always available. The roots may be found from June to September. *Arnica cordifolia*, with a similar root, is a yellow composit.

We offer a dormant plant collection in units of three each of five species 15 plants in all for \$----- shipped in August if ordered in June. Try it.

### SPECIAL DORMANT OFFER:

Three plants of five species — 15 plants in all, shipped in August on orders received before the end of June at the latest, for \$12.50, prepaid.

*Lewisia rediviva*: \$2.50 for 10 plants, Aug. and Sept. delivery.

Plants of: *Mertensia longiflora*, *Delphinium bicolor* and *mensiesii*, *Ranunculus glaberrimus*, *Woodia scorpiolana*, *Anemone patens nuttalliana*, *Bessyea rubra*, *Malvastrum coccineum*, *Polygonum bistortoides*, *Spirianthes porrifolia* and *Calypsobulbosa*, etc., can be supplied at the rate of 3 plants each for \$2.75 prepaid, delivered as collected.

We will be pleased to receive your inquiries on any native western mountain plants and will advise and quote you separately.

## Germinating Seed in light or Darkness

This is a subject that can be written about, without ever coming to the end. And the most difficult letter to write is in answer to a complaint about germination. If a certain lot of seed does not germinate, and we know it, it would not have been sent out, and we are continually making tests, so that we may know when the germination is low. Many of the common flowers, such as *Nasturtiums*, *Marigolds*, *Zinnias*, etc., are very easily germinated, but there are others that not only are difficult, but they require some attention and knowledge; then others require considerable time to germinate and with this type, one will have to be able to give the proper care at all times.

The matter of light or darkness is of importance, too, and we are now getting material together so as to indicate those that are particular to this requirement. Other seeds require a certain temperature and this is usually mentioned as cool or warm, in the cultural notes. Cool, means not over 60 degrees F. and warm, 60 degrees F. or more. Some tropical plants not only require a warm temperature but a moist one, much more moist than the usual northern sorts. And still others are benefited by placing the seed in the freezing compartment of your refrigerator for 3-6 days before planting; even to the actual freezing of the seed in ice cubes.

In 99 cases out of 100, the failure to get germination is due to some lack on the part of the grower; however, this ratio can just be reversed according to the grower and at times it is hard to see where the fault is. We had an experience last summer, where we planted some 10 species of a certain genus in a flat, one to a row. Two or three of them failed to germinate at all, and one would reasonably say they were no good; but we again made a similar planting of the failures together with a few we wanted more plants of and this time the failures germinated. We still cannot say why they did not germinate.

Again, where you purchase seeds collected in the tropics and especially those in India and such countries, do not expect as high a germination as you would on seeds gathered in sections where conditions are better; even the trip thru the tropics on such seed does them little good. And again, many of this type of seed arrives late and they are sent out before they can be germinated, but when we do find out that they are failures, we check the orders and send out credit slips.

Western native seeds are another group that requires a little patience and we try to have reading matter along this line, as often as possible.

Most flower growers, however have very little trouble in starting their flower seeds, which we are pleased to say, otherwise our labors would be very discouraging, but when you do have trouble in getting something started, always write us your problems and we will be more than willing to go into detail; and as soon as time will allow, there will be considerable more information on this subject, incorporated in the cultural matter under each listing.

The listing of seeds under their botanical name, while the best and correct method, is also necessary due to our international scope. Our customers are located in just about every country, and common names here would not be understood in other countries and common names even are different in parts of the U. S. Again, where only the most common varieties are offered, it would be simple to list them under Canterbury Bells or Pinks or Forget-me-nots, but when many species also are included that are Campanulas and not Canterbury Bells, it becomes necessary to list them all under their correct classification.

## • Primulas

(Continued from Page 1) of species involves both easy and difficult ones, and a few of the easiest are mentioned here, while from time to time others will be dealt with in this column.

With the exception of *Auriculas*, and of a few species that are not often available, primulas like a rich soil preferably containing considerable leafmold, plenty of water throughout the growing season, and light shade. Most kinds will flourish under an apple tree of a flowering crab, or on the north side of a house, where they look delightful among ferns. The *sikkimensis* and *candelabra* types rejoice in even more water, and are supremely happy along the bank of a brook, or at the edge of a pool. In cool climates with ample water, shade is not necessary for many kinds.

Most primula seeds germinate best if sown in late winter or early spring, while the weather is quite cool. Late fall sowing in open beds is practiced by some gardeners, but more success will be had by sowing in pots, or flats, container with a mixture of equal parts good loam and leafmold (or more rapidly if the soil has been sterilized before sowing). The seeds should be covered very lightly with soil, and set in a shaded place, preferably where they will freeze for a short time; the soil must never be allowed to dry, and covering with glass or building paper will aid in conserving moisture. Germination will take place in anywhere from one week to two years, depending on both weather conditions and species. Normally from late winter sowings the seedlings will begin to appear after a week or two of mild weather, while later sowings of most kinds will require at least three weeks, if indeed they decided to appear before the next season.

The customary rule is to transplant primulas when they have two true leaves, but I find that the delicate roots are quite resentful of disturbance, and that many species are almost impossible to move safely until at least a year old. Whenever possible I leave the seed-pots undisturbed until the second spring. *Polyanthus* and a few other vigorous species are exceptions, and can be set in their permanent quarters by the end of the first summer.

*Polyanthus*, often listed as *Primula veris elatior*, are the most popular of the entire race, and with good reason, for careful selection in recent years has developed strains that on foot-high stems have great heads of flowers that may be as large as a silver dollar, in all the colors of the rainbow, and many more. Seed of these normally requires two or three weeks to germinate, and the slower and weaker seedlings will give the finest flowers. Young plants come along rapidly, and in the long growing season of the Northwest will flower the first fall, but in the East no flowers can be expected for at least a year under open-ground culture.

*Primula* for which the name "primrose" is really correct, differs from the *Polyanthus* only in having each flower on a separate short "stem" just above the rosette of leaves; the flowers are not quite as large as those of the most advanced strains of *Polyanthus*, nor in as wide a range of color, but to many eyes are far more pleasing than the spectacular *Polyanthus*.

The wild *Primula auricula* is invariably yellow in color, but through several centuries of garden cultivation it has been hybridized with one or more other European species and the modern garden *auricula* has a wide range of color, though in less intense tones than those of the most advanced strains of *Polyanthus*, nor in as wide a range of color, but to many eyes are far more pleasing than the spectacular *Polyanthus*. The wild *Primula auricula* is invariably yellow in color, but through several centuries of garden cultivation it has been hybridized with one or more other European species and the modern garden *auricula* has a wide range of color, though in less intense tones than those of the most advanced strains of *Polyanthus*, nor in as wide a range of color, but to many eyes are far more pleasing than the spectacular *Polyanthus*. 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## Some Very Easy Rock Plants

by C. R. Worth

One of the greatest charms of the rock garden is its display of sheets of brilliant color in earliest spring, before even daffodils and tulips are fully open. To accomplish this effect a very considerable number of plants is needed, for most rock plants are small, and few, other than undesirable rampers, will cover much more than a square foot of space; for really massed color effect, they should be put somewhat closer, and eventually thinned out if they show signs of being crowded. Small bulbs in quantity are needed too, and these, together with choice and rather expensive varieties that all rock gardeners crave, make a serious drain on the purse if all must be purchased as plants.

However, a great many really desirable rock plants can be raised from seed with ease and very little expense, and these are the very ones on which to depend for masses of color, not merely in early spring, but later in the season. Even if sown as late as June, they will make stocky plants ready to be moved to their permanent positions in September, which will make a great display the following spring, and even more in succeeding years. For these easy species, sowing in an open-ground bed is all that is needed. The soil should be worked up rather fine, after which the seed can be sown in shallow rows about six inches apart, and covered not more than a quarter-inch. Germination will be hastened if the seed bed is covered with a layer of burlap or with boards till the first seedlings appear, and watering will be lessened if the bed is made in very light shade, on the north side of a building or under an apple tree. Other than an occasional weeding, and watering during a dry spell, no attention will be needed until the plants are ready to be moved to the rock garden.

Of the many species suitable for such treatment, I have selected a few of the very easiest, which normally germinate in a week or less. Anyone who can raise radish and lettuce should have no trouble in producing these in quantities sufficient for his own needs and for gifts to friends.

The Mustard Family not only supplies many of our vegetables, but offers several of the most indispensable rock garden plants. These live up to the family reputation by "germinating like cress" and soon develop through a husky babyhood into vigorous flowering specimens, all of which are especially suited to planting in large groups for intense color display. Among the most desirable are Alyssum, Arabis, Aubrieta, and Iberis, while if one wishes to add a dash of mustard, Cheiranthus and Erysimum come in yellow and orange.

Alyssum saxatile is one of the best known of all rock plants, with tufts of rather large and jagged silver grey leaves, evergreen and ornamental at all seasons, while in early spring foot-high stems bear a great profusion of golden bloom, or in the variety Silver Queen, soft primrose flowers that will be more pleasing to many gardeners. But there are many other Alyssums, little prostrate plants or low shrubs, with small narrow leaves of dusty green, grey, or silver, and a quantity of yellow flowers rather smaller than those of A. saxatile. All of these are easy and happy on a sunny slope or trailing from a crevice. To get a great variety of these distinct and rather unfamiliar forms, try the "Rock Garden Perennial Rare Species Mixed."

The white *Arabis alpina* (or *albida*, as botanists now insist is correct), vies with Alyssum for the position of most popular rock plant. From a central rootstock low branches produce a sheet of somewhat lobed grey leaves, making a spreading mat only a very few inches high, completely smothered under heads of large white blossoms on the first warm days of spring. There are also delicate pinks, varying much from seed, and a carmine-rose strain called Fruhlingszauber, which I have not seen. Whichever color you choose, you will want to plant it in broad sheets, in either sun, for the first choice, or very light shade.

*Aubrieta* forms the third of the trinity of Cresses, with the habit of *Arabis*, but with much smaller green leaves. Its flowers range through a myriad of lavender, purple, blue and pink shades, and occasionally one comes semi-double. Named varieties are legion, especially in English catalogs, but seed from a good strain will give very satisfactory results. Strangely, this plant from the sunny hills of Greece likes a rather cool position in Eastern gardens, and is best grown on a north-facing slope or crevice; in the latter position it will trail down over the rocks and form a curtain of brilliant color.

*Iberis* repeats the type of flower of *Arabis*, but usually on a small woody bush, with narrow dark green leaves. *I. sempervirens* grows a foot high, and more across, and is one of the earliest flowering of all plants, often unable to restrain itself during a mild spell in late winter. *I. gibraltarica* flowers much later, and its flat clusters of lilac flowers are less impressive than are the glistening white ones of *I. sempervirens*; it is almost always short-lived. *Iberis jucunda*, usually known as *Aethionema coridifolium*, is one of the loveliest of all rock plants, easy or difficult. It makes a little loose bush six inches or less in height, and a bit broader, with narrow leaves of blue-grey, and in early summer bears at the tip of each branch a short head of rather large clear pink flowers, which on a humid morning fill the whole garden with a honey-sweet fragrance.

Among the daisies, *Aster alpinus* is one of the best for the rock garden, forming a clump of a number of rosettes from which spring a number of stiff foot-high stems, each bearing a single daisy two inches across with golden center and rays of violet or white; "pink" varieties are likely to be more nearly lavender-pink. Even *levelelier*, with longer narrower rays and more intense color, is *Aster subcoeruleus*. Both species are best in the more level places of the rock garden, flower in June, and are rather short-lived perennials.

Another little daisy which should come well from open-bed sowing, although I have never tried this treatment, is *Erigeron compositus*, from the central and northern mountains of the West. A small tuft three or four inches high when in bloom, and as much across, its tiny leaves are cut until they look like little fingers of softest grey; the half-inch daisies, with very narrow rays, come in white and soft lavender, with golden center. This, too, is short-lived, and I have never known it to self-sow here, but it comes so easily and profusely that this failing cannot be held against it. It will grow in shade, but becomes lanky there, and should have a choice spot in full sun.

No sunny rock garden is complete without a wealth of pinks. Some form low mats of green, others have narrow grey needle-like leaves and make hedgehog domes. In level but well drained positions, or sheeting a broad ledge, tumbling from a crevice, or perched on top of a mound, they are delightfully decorative throughout the year, and especially so when in June they burst into a sheet of bloom, small-flowered, or large-flowered, with petals merely notched or wildly fringed, from pure white through soft pinks to rose, many of them as deliciously scented as a carnation. For sheer delight and variety, select a packet of either "Rock Garden Pinks" or "Rare Species *Bianthus*", or choose according to taste from *DD. arenarius*, *caesius*, *monspessulanus*, *neglectus*, *deltoides*, and *knappii*; the last three are not fragrant.

*Saponaria ocymoides* throws long trailing stems set with oval leaves of rather bright green, and in early summer is covered with heads of rather large phlox-like flowers of clear pink. It displays itself best in a wall or tumbling down a ledge, and seems indifferent to sun or light shade.

*Silene schafta* would probably not rate very highly if it flowered in spring, but coming in late summer, when there is little bloom in the rock garden, it merits considerable attention. Its pink-like flow-

## • Primulas

(Continued from Page 21)

most Primulas, like lime, and are happy chinks and crevices of the rock garden. Seed will germinate well only exposed to a month or so of cold weather or given other special treatment. Seedlings require two, or more often three, years to reach blooming size, but then increase rapidly.

Western plants of the Primrose family are "Difficult subjects" so they say. I don't know much about primulas so perhaps that is as good a reason as any for me to write about *Douglasia montana* or Mountain Pink which in my botany is just between *Primula parryi* and *Drosace carinata*, proving I guess that botanists look at plants through technifocal glasses. When not in bloom I could confuse the pink flowered *Douglasia* with the better known white flowered *Drosace* but never with that proud and palitable *Primula parryi*.

In March or April, before the last spring snows have gone, the long rock and gravel ridge above Missoula's gravel pit may turn a rose pink as though absorbing the earliest and latest of the sun's rays into this mountain valley. If we climb to this red tinged ridge we will find that the *Douglasia* is in bloom. Each compact cushion hugging the gravel for warmth but tiny bright and numerous, one to a stem, flowers unmindful of the raw March wind that numbs our cheeks and fills our eyes with tears.

If the area has been undisturbed and the seasons favorable for several years the tufts may measure from three to twelve inches across. If drought or trampling has thinned the mature plants, numerous tiny green, or reddish if the weather is cold, knobs may demonstrate the viability of the 4 to a flower seeds stored in the gravel.

Two weeks later, up Drummond bloom in pure clay doam and later still the barren spots of the way, equally thrifty plants will higher mountains will be tinted.

ers of rose-purple are produced on rather loose mats of narrow green leaves.

Geraniums come easily and promptly from seed, but most of them are for the woodland or wild garden. The few rock garden species are very well worth growing. *G. sanguineum* has rather small deeply slashed leaves, grows about eight inches high and spreads slowly into a mound that after many years may be several feet across. Its flowers, more than an inch wide, are vivid reddish purple, and there is also a lovely white form. *G. collinum* has not yet flowered here, but its frail growth makes it resemble lovely *G. farreri*, and I am hoping for fine things among my batch of seedlings. *G. grevilleanum* I have never seen, but from the description, its prostrate habit and pale rose flowers two inches across make it sound extremely desirable.

Campanulas, the Bellflowers, are indispensable, although most of the dwarf ones probably need more careful attention in their early stages than can be given in an open bed; the seed, by the way, should be barely covered with soil. There are at least two species which need no special care as seedlings: *C. carpatica* sends up a great many stems, sometimes nearly a foot high, though it is quite variable, set with narrowly heart-shaped glossy green leaves, and through midsummer produces a host of big shallow bells, in various lavender-blue shades, and exquisite white. *C. rotundifolia olympica*, a form of the Scotch harebell, has narrow bells of pale to deep lavender-blue, in countless profusion, along a mass of thin wiry foot-high stems. Perhaps *C. garanica*, of barely half the height, and with bright violet-blue stars, will also be satisfactory sown in the open, but I have not treated it so.

The true mountain Pansies are hard to obtain and harder to keep, but their remissness is not too hard to bear, for among the smaller-flowered Violas are many delightful substitutes. I do not care for the ones with fair-sized rounded flowers, for in the rock garden they look like undernourished bedding pansies; I choose the ones with rather long and narrow faces, that seem to follow one's every movement about the garden. The little Black Imp (Bowles' Black), of black velvet with a tiny spot of blue just below the golden eye, and multicolored forms of *V. saxatilis* are good choices for a start. Although short-lived, they leave behind a host of children, and these offspring have the little elfin faces that I love—often with sooty cheeks, from the influence of the Black Imp. Give them sun or light shade, and they will soon choose for themselves the places in your garden that they prefer.

Forget-me-nots, in spite of their tendency to self-sow all over a damp or shady garden, are so well loved that they cannot be passed by. Any you select will delight you, although my own preference is for *Myosotis palustris*, which is particularly happy along the edge of a pool or brook.

The names of the various *Polemoniums* are sadly confused, and I have no idea of just what will come from a packet of *P. haydeni*, except that it will have ferny leaves and loose sprays of small saucer-shaped flowers of blue or white, golden-eyed. I can also predict that it will be delightful, and that it will grow in either sun or light shade; in the wild this type of *Polemonium* loves to half-conceal itself at the edge of a shrub.

And now, for real "adventure", try a packet of mixed rock garden perennials, as I shall. I do not expect to get plants of anywhere near the 300 species comprising the mixture, although I shall leave that seed bed undisturbed for at least a year, to allow the slow germinators time to appear; but I do expect to get a sample of many of the common species, and a number that I have never grown before. Dotted in odd corners of the rock garden, they will surprise me by flowering in a year or two, after I have forgotten all about them, and for a while I shall be puzzled as to how they ever arrived in my garden. I expect to get many thrills from that packet, and at some later date shall report on what came out of it, to make you wish you had sown a packet too—if you've not already taken my advice and done so.

# MONTANA CACTI

F. H. Rose

Montana has something of a reputation for lonesome men and howling blizzards. You may not be able to love either but even so certain of their qualities must be admired.

So also with Montana cacti. Only four species are found but like our men and weather they are not softies. The thermometer may freeze and break but Montana cacti will come out and bloom in the spring. Two *Opatias* and two of the ball or pincushion type make up the list. Briefly, as becomes Montana biographies, the four are; *Opuntia polyacantha*, The Prickly pear, a flat leaf (stemmed) type that grows easily and makes an ample display of large yellow blossoms. Long stiff brownish spines and short eager ones protect it from all but fire and rodents. Old stems are retained and new ones added until one plant may form a considerable patch. The top of an old dirt roofed cabin is about right for its culture. *Opuntia fragilis* duplicates the flowers of the Prickly Pear but has small round leaves (stems) joined end to end, the upper one breaking off easily giving its common name of Jump cacti. While sometimes found with *Opatia polyacantha* it extends more into the mountains, tolerating, if the drainage is good, more rainfall. It is low growing, a patch of plump green rounded cylinders amply armed with short but vicious prickles. The *Opatias* can always be found if one looks in the right places. The pincushion or ball type are more retiring. *Coryphantha vivipara* arms each tuberule with three or four stiff spines surrounded by a cluster of smaller ones. The flowers are purple and its fruits the following spring are green. Its stems though usually single sometimes form clusters of varying size. It is at home in a gramma grass sod. *Coryphantha missouriensis* seems shy, sometimes almost burying itself in the sandy soil. Its soft white spines are not hostile so perhaps it finds safety in seclusion. In season it circles its top with straw colored flowers, not very conspicuous, but the fruits the following spring are brilliant red to attract the attention of whatever bird or animal this cacti depended upon for seed dispersal, before seed companies published catalogues.

Montana's four cacti may hardly be adequate for a conservatory but if your opportunity is limited and your winters severe, three yellows and a red so different in type will represent the family fairly well and bring a desert in minature to your garden.

NOTE: We can furnish a collection of three plants of the above four, described and the fourth, if found, all for \$2.00 prepaid, shipment during June to October. It will take at least 30 days to fill an order if placed DURING this date; order placed before will be shipped as soon as collected.

Listing flowers under annuals, biennials and perennials, as is done in some catalogs of flower seeds, is all right where but the most common kinds are offered but when the list becomes rather extended, as ours, this cannot be done, without confusion. Many species may be perennial in the South but must be handled as annuals in the North; the principle point is whether they live only the first year or whether they can be carried over to the next. And to have a genus all together is more to the point than having it scattered all over a book, requiring an index to find it.

Save all your raking, leaves, etc., for a compost pile and when decayed, mix it with a little soil, some sand if possible, and cover the soil around the new plants. You will find the mulch will work wonders.

Has your favorite flower been properly written up? If not, why not write us?

# LAWN GRASSES

We offer only the very best grades of Lawn Grasses. We suggest that you order separate grasses, when possible, rather than mixtures, as you will more likely have a more suitable stand of grass for the purpose you wish as well as for the particular soil. The mixtures that we offer from time to time, are made up especially for the season in which they are listed.

## Kentucky Blue Grass

This is the most satisfactory lawn grass for the northern part of the country and should make up at least 80% of any sowing. For sowing in March, which is the best time, a 100% seeding can be made. It requires about 21 days to germinate and thus the best stands will be secured when planted early.

**PREPAID:** Lb. 60c; 3 Lbs. \$1.60; 10 Lbs. \$4.80; 25 Lbs. \$11.60.

**NOT PREPAID:** 112 lbs. bags, at 43c per lb.

**ANALYSIS:** Pure Seed 92.27%; Germination 80%; Inert Matter, 7.04%; Weed Seed .87%; Crop Seed .32%, 2 Buckhorn per oz. Grown in Ky. This lot weighs better than 24 lbs. per bushel and is a very choice lot.

## Lawn Red Top

Where a quick growth is wanted for a start and especially on soils that are towards the wet side, Red Top makes an excellent Lawn Grass. It is a fine grass, germinates quickly and can be sown as soon as the ground is ready in the spring. Blue grass should be sown with it for the permanent grass. Red Top has a more pleasing appearance than the Rye Grasses or Timothy, which is often used for a quick growth.

**PREPAID:** Lb. 40c; 3 Lbs. \$1.10; 5 Lbs. \$1.75; 10 Lbs. \$3.25

## Dutch White Clover

White Clover gives the lawn a dark green appearance and a velvety texture. It is quick to germinate and can be sown in March, on the snow, as well as later in the spring. It is an excellent grass to plant with Blue Grass and one of its most important advantages is that it gives a green lawn during August when Blue Grass is likely to dry up during a hot dry spell. Sow about  $\frac{1}{4}$ - $\frac{1}{2}$  lbs. to the square rod on new seedings and half as much for established lawns.

**PREPAID:** Lb. 95c; 3 Lbs. \$2.75; 10 Lbs. \$8.25.

WE RECOMMEND for a general Lawn Grass mixture for sowing on old lawns, for March sowing, Blue Grass, 80%, Red Top, 15%, White Clover 5%. When ordered in 10 Lbs. lots, use the 10 Lbs. rates above for prices.

## Ordering—Important

First be sure to print your name and address. We get hundreds of letters every week of which it is impossible to make out properly.

Remit in checks, money orders or, at your risk, in cash. We did not have a single cash remittance lost last year, but it could happen. Orders amounting to 25c you can remit in 1c stamps; 25c - 50c in 3c stamps; 50c - 95c in 5c or 10c stamps, but over this amount do not send stamps, please. Michigan customers please add their 3% sales tax. Don't forget.

Orders for seeds, bulbs, plants, etc., are not mailed in one package. Seeds usually go out by return mail and are not acknowledged, but if there is any delay in shipping you will receive an acknowledgement.

On Flower Seeds there is a key-number just before the price. To save you a lot of writing just use the symbol. It is short and easy.

# PIONEER SEED COMPANY Dimondale, Mich. U. S. A.

"Pioneer Seed Co., gives no warranty, express or implied, as to the productiveness of any seeds or bulbs it sells and will not be in any way responsible for the crop. Our liability, in all instances, is limited to the purchase price of the seeds or bulbs."

If this order should become subject to any sales, use, or other tax, please add the correct amount to your remittance.

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V. S.			
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### **Seeds and Bulbs sent Prepaid**

They are forwarded on receipt of order unless instructed to the contrary. Be sure you state the correct variety numbers besides quantity and price.

## **Pioneer Seeds and Bulbs**

If sold out of any variety may we substitute? Yes ; No

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These can be sent only by Express or Freight at customer's expense, except where quoted postpaid in the catalog.

## We Should Appreciate

the names and addresses of some of your friends interested in gardening so that we may send them some of our literature.